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Submission to the Productivity Commission by Shipping Australia Limited

Regarding the Inquiry into the Economic Regulation of Harbour Towage and Related Services in Australia

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EXECUTIVE SUMMARY

- Towage costs in Australia account for around a third of the ship-based costs of entering Australian ports and the cost effectiveness/high service standards are vital for the future trade competitiveness of this country.

- On a per port basis, the market for towage services in Australia is relatively low compared to many overseas ports and there is, in SAL's view, only room for one towage operator in each port.

- Barriers to entry (and high exit costs) characterise this industry, and this has been borne out in the conclusions of many previous inquiries into harbour towage in Australia.

- Issues of ancillary services, such as fire-fighting capability, mooring and unmooring services and salvage, important as they are in their own right, should not distract the Commission from its prime task of how this industry should be regulated and how at least some competition can be generated. Nevertheless, ancillary issues are addressed in this submission.

- In the view of our Members, the best way to introduce that competition is by way of exclusive licenses over, say, a seven year period or a port by port basis. These licenses should include arrangements relating to prices over its term, safety and salvage capability, when/how tugs can be released for emergency purposes, training, repairs and maintenance, and so on. Users of the ports should have input into exclusive license arrangements.

- At the present time, there is little or no countervailing power which could be used to dampen the enthusiasm of a natural monopoly to realise excessive profits. In the past there was consultation between users and operators, and when there were more tug operators there was a significant degree of price restraint.

- SAL does not support continuation of price monitoring under the Prices Surveillance Act, 1983, but as a last resort would reluctantly support some method of price monitoring under industry specific legislation which could be incorporated in the Trade Practices Act to regulate towage prices to some extent if exclusive licenses, for whatever reason, do not become commonplace in Australia, at least in the major container and bulk ports.

- SAL looks forward to offering the Commission whatever assistance it can as this inquiry progresses.

1. INTRODUCTION

Shipping Australia Ltd (SAL) was created in July 2001, as a result of a merger between the Australian Chamber of Shipping Ltd and Liner Shipping Services Ltd, and it is one of the two peak shipowner bodies in Australia, the other being the Australian Shipowners' Association. SAL represents all types of shipping and included in the submission, at Attachment A, is a list of the member companies and shipping agencies. These members would spend around A$100 million per annum utilising towage services in Australia.

At Attachment B there is a list of tugs provided in both declared and undeclared ports in Australia, including the type, bollard pull and owner.

Members of Shipping Australia remain most concerned that despite the Australian Competition and Consumer Commission (ACCC) total rejection of the notification under the Prices Surveillance Act, 1983 of the proposal by Adsteam Marine to increase the prices at certain declared ports, Adsteam rejected the conclusions reached by ACCC that the proposed prices were unjustified and applied the following increases.

Brisbane	11.7%
Port Jackson	26.2%
Port Botany	13.1%
Melbourne	23.4%
Adelaide	15.8%

At Attachment C there is a table setting out the change in the average costs of towage for container shipping, and a similar table for bulk shipping is awaited from Adsteam (when received, it will be provided to the Commission). Furthermore, there is a comparison of competitive towage prices in some selected overseas ports prior to these increases being applied and examples of towage price variations at selected non-declared ports and for a grain vessel.

Towage costs are a very high proportion of ship-based port costs, and the average would be around 30% with a large variable range from around 15% to over 50%. The Adsteam increases outlined in Attachment C are being applied at a time of serious financial difficulties being faced by both international liner operators and the bulk shipping industry. SSY Consultants and Research Ltd monthly shipping review provides clear indications of reduced freight rates over the last year or so for dry bulk and in the tanker market. In relation to liner, there is an interesting comment in the editorial to the April 2002 edition of Containerisation International magazine that "There is now a genuine worry amongst some shippers that prices (liner freight rates) have gone unrealistically low and threaten the health of some carriers." Increased towage costs will exacerbate that trend.

When comparing the new towage prices in Australian main ports, it is interesting to reflect that in New Zealand it would cost approximately A$1,332 per tug for vessels around 20,000 tonnes at the Port of Lyttleton and A$1,350 at Port Chalmers, and for a vessel with a GRT of around 43,600 tonnes, the towage costs per port call (container vessels) would be US$2,510 in Rotterdam, US$6,887 in Tilbury and US$3,746 in La

Spezia. It should be noted that these are costs per tug and not average towage costs per visit.

Undoubtedly, international comparisons will yield both higher and lower costs, but it is important if Australia is to remain internationally competitive that the costs of towage in this country be as competitive as possible.

2. ISSUES

2.1 HARBOUR TOWAGE: MARKET CHARACTERISTICS AND PERFORMANCE

Services provided by towage operators

The main difficulty that shipping Lines have with towage in Australia is price, and they are reasonable satisfied with the levels of service provided by towage operators but they do require a 24-hour service with reasonable minimum call-out time periods at respective ports. It should be noted that, for example, tugs are manned 24 hours a day in Melbourne, but this is not the case in Sydney which requires a minimum 2-hour call-out time.

The Issues Paper raises the question of what other services do harbour towage operators provide and to what extent is there joint production of these services?

In a number of ports tugs have fire-fighting capability, but it is important to note that originally these were expressly provided at the request of the Port Corporations and relevant safety authorities and not the towage operators. Local agreements, for example, were in place, including who was responsible for meeting the costs of foam used in the fire-fighting role, and initially the ports paid for that with the proviso that if expended then the party for which it had been used would reimburse the towage contractors.

Salvage is really considered to be a commercial decision by a towage operator if they wish to engage in that market. Originally, salvage tugs were placed in strategic ports around Australia, and it is worth mentioning that the majority are still in place (at original capital cost), and the capital cost was built into the general port tariff at that time. Any additional costs arising from the salvage itself were, of course, charged to the parties direct and/or settled through arbitration. It is SAL's view that dual-purpose tugs do impose additional costs because of the higher operating costs which need to be recovered, e.g. the Girrong in Melbourne.

In fact, it is SAL's suggestion that existing tug assets in Australia should be benchmarked, at least initially, against, say, the Canadian designed tug which presently operates in Esperance with a bollard pull of some 60 tonnes and a capital cost of A$5.5 million compared to A$11 million for the Girrong. SAL refers the Commission to the details contained in Attachment D to this submission. It is acknowledged, however, that such a tug may not be suitable for the operating conditions in all ports, but it is a very useful start in a benchmarking exercise.

The issue of salvage is really a national issue and shipowners don't generally object to tugs with that capacity on the basis that there are a few tugs capable of salvage operations in strategic ports, but they are concerned where the majority of tugs have that capability in any one port, e.g. Melbourne. In other words, SAL Member Lines agree to the use of a dual-purpose tug but it should be costed at the operating cost of a harbour tug.

Reference in made in the Issues Paper as to what extent in these joint production of these services (e.g. fire-fighting, salvage), and given that there is only one tug operator in most ports there is very little sharing of equipment and other inputs, although in terms of salvage the tug "closest to the action" could normally attend, and it is a fair point to make that the size of Adsteam Marine, for example, in the Australian market could result in the sharing of maintenance, reduction of operating costs as a result of volume purchases, synergies and economies of scale in relation to training, and so on.

The terms of reference request that the Commission report on the provision of harbour towage and related services, e.g. mooring lines. As an example, mooring and unmooring is very expensive in Sydney, and following are comparative costs in relation to a 20,000 GRT vessel of 7,500 NRT, LOA over 150m, arriving and departing during normal working hours on a weekday (all rates are inclusive of GST). It should be noted that there is competition for such services in Melbourne but not in Sydney.

Mooring/unmooring	Brisbane	$1,402.20
	Melbourne	$1,100.00
	Fremantle	$990.00
	Adelaide	Nil
	Sydney	$2,727.88 (Brotherson Dock 8am-4pm, incl. launch hire)
Launch Hire	Brisbane	$411.40 (used for mooring only)
	Melbourne	
	<200m	lineboats not required.
	>200m	$746.00 only on arrival
	Fremantle	$319.40
	Adelaide	Nil

Note

Adelaide mooring/unmooring charges are included in the Harbour Service Charge of $2,860. Other South Australian ports also include such charges in the Harbour Service Charge of $2,458.

There is a significant increase in charges in Sydney when mooring/unmooring is carried out after hours/weekends and public holidays (e.g. Sydney between 4 pm and 8 am = $4,300 and during weekends = $4,992, whilst there is no difference in charges in Melbourne for weekend/night shift, etc.).

High costs of mooring and unmooring also occur in Newcastle and Port Kembla as SAL understands that NSW ports are covered by the NSW State Award governing marine motor drivers, coxswains and c.State (Award) B1886-IRC. This Award provides for conditions not applicable to ports outside NSW including the widespread use of lines-boats.

It is the view of SAL that the use of a dedicated lines-launch service for berthing or sailing from quay berths is an anachronism. Port Authorities and their stakeholder State Governments should legislate to remove this requirement as modern, highly manoeuvrable tugs have replaced the need to run lines and, in fact, can hold a vessel alongside whilst lines are lowered to waiting linesmen. The only exception would be when lines-launches are required for a vessel arriving at or sailing from a buoy or dolphin berth.

Industry structure

The main factor leading to rationalisation of harbour towage in the 1980s and '90s was the need to achieve economies of scale and scope, particularly bearing in mind the changes in shipping patterns and designs with less tugs being used or required in many ports, which was accompanied by a decline in the number of vessel calls.

Whilst this has resulted in reduced costs for some vessels, e.g. container vessels, on average the same could not be said for other types of vessels such as bulk carriers, pure car carriers and tankers. Furthermore, it is our strong contention, having been through the recent ACCC investigation, that considerably cheaper towage could be provided to shipping Lines in Australia if there was more competition. Whilst best practice demands the least cost commensurate with the level of service required by shipping Lines, we do not accept that that situation pertains in Australia at the present time. Costs could have been reduced had there been more consultation with users in individual ports, particularly in relation to the type of tug being introduced and required, and whether there could be alternatives such as using an old (an upgraded tug) instead of a new tug, and this could well have had the affect of minimising the costs that are now levied upon port users.

One distinct benefit of having one towage company spread across a number of ports is the key ability to transfer lesser valued tugs (yet at a higher standard) to those ports which cannot afford expensive, brand-new models. Whilst there could be savings attributable to one towage company spread across a number of ports with operating costs such as insurance, fuel, lines, etc., as a result of the buying power of one group controlling a large number of vessels, these savings will only be transmitted to users if there is some potential competition. As noted above, this is lacking in the Australian environment, and indeed even consultation has been singularly lacking in more recent times.

SAL's impression is that tug jobs have declined in other countries, but a number of those countries have more than one tug operator in each port. In some countries, such as New Zealand, there is strong vertical integration with, in effect, a privatised Port Corporation providing pilots, tugs, mooring/unmooring services, and so on. This can work in New Zealand, because of the competition between ports and its particular environment, but it is not evident in Australia and caution needs to be exercised in drawing strong conclusions about overseas practices without taking into account the differences in the operating environment.

The Issues Paper suggests that in the past provision of harbour towage services in Australia has been vertically integrated with the provision of other services in the sea transport chain, but we question this assertion, particularly in relation to the declared ports, and we would like to discuss that point further with the Commission.

In some cases, vertical integration is prevented by regulation, e.g. licensing of pilots under an exclusive arrangement, and we don't see the benefits of integrating pilots with tugs because of, as noted above, the lack of competition between major ports in Australia and, as well, the possible perceived conflict of interest issue. In any event, we do not see regulation as being a barrier to reducing costs of harbour towage services in Australia. With the exception of New Zealand, our understanding is that vertical integration is not common in overseas towage operations.

Costs

Insurance and manning, including the number of crews, are major costs impinging on towage operations, but there are also many variable costs, e.g. fuel, stores, repairs and maintenance, dry docking, and so on.

Historically, the return has been based on original capital costs which have been depreciated using a straight-line method. It is understood that returns from towage services were good in the past, and one of the issues that SAL raised in the recent ACCC investigation is why the situation has so dramatically changed and altered in only the past three to four years.

In the past, the relationship between capital and labour costs per tug has not been as dramatic as it is now. For example if a Z peller had a crew of three and a non-upgraded twin screw tug had a crew of four, this would not make a major difference to the overall bottom-line given that the Z peller could have been valued (in the past) at say A$4 million with a reduced crew and the twin screw vessel with a crew of four valued at say A$1.8 million but with higher crew numbers.

Costs levels and structures for the provision of harbour towage services would vary between ports, reflecting the value of individual tugs, their size, number of crews, different manning levels, different administrative factors, and even the number of tugs based at individual ports. The size and composition of the tug boat fleet operating in Australian ports has changed over the last ten years, and at Attachment B is a list of the current fleet. More information in this respect was provided by Adsteam to the recent ACCC inquiry.

It is clear that, as far as users are concerned, towage tariff costs have risen, not fallen, at least in the declared ports, the subject of the recent ACCC review, but a factor affecting costs was the reduction in crew numbers from four to three on a number of tugs that were able to accept that reduction, e.g. technological changes to winches, etc. Shipping Lines do not accept the point made by Adsteam that in the recent increases such cost reductions were effectively taken into account and the increases would have even had to have been higher if there had not been that reduction in manning levels. The majority of Adsteam's fleet became subject to 3-man crewing during 2000 and 2001. The technology of the newer tugs facilitated this ability to reduce manning levels, and we still question the number of crews in certain ports and whether that is the most efficient way of operating the fleet in those ports.

SAL understands that the number of towage hours worked per crew per working day would typically be in the order of:

	hours
Brisbane	3.85
Port Jackson	2.90
Port Botany	2.91
Melbourne	3.50
Adelaide	2.62

SAL does not believe there is a major difference in productivity levels in terms of efficiency in harbour towage in Australia compared with operations overseas, but does believe that there are additional costs involved in Australia and understands that there are competitors who, for an exclusive license in a port, could provide the same level of service but at lower costs as shown by the recent Fremantle/Bunbury experiences. Many ports overseas have a much higher volume of ship movements and this reinforces the natural monopoly position of the major towage operator in Australia.

SAL believes that the best way to improve the situation is to bring in some viable and sustainable competition that would provide the required level of services at lower costs. As mentioned above, there could be at an early stage of such entry a lower number of crews, but current manning levels of three (subject to port characteristics) appears to be efficient, at least at this point in time.

In terms of the diesel fuel rebate, Adsteam has maintained these have been passed on through lower towage rates, but specific information for each Line is currently being sought from Adsteam to verify that view.

Demand

As mentioned previously, demand for tugs in some ports has remained static whilst in others it has declined, particularly for container and cruise vessels owing to the introduction of new technology, such as the addition of bow/stern thrusters, coupled with their high manoeuvrability. Some chartered container tonnage, does not have this technology as the owners do not see that they receive a return, e.g. through lower towage charges as a result of spending money on such new technology. Shipping Lines and shipping Agents will always continue to explore cost savings in all areas, including towage, which becomes a judgement call given the variability of weather. Some ports, because of their characteristics, physical size, cargoes and port requirements, will necessitate higher tug usage than others, e.g. those ports such as iron ore and coal ports, vis-à-vis capital city ports where container vessels are the norm. Over the longer term, it can be expected that on average the trend to lower towage units for certain vessels, such as container vessels, will continue but probably not at the same rate of decline as has occurred over the last five years, and it is difficult to see a major reduction in tug usage in the bulk sector or, for example, in the pure car carrier sector.

It is also worthwhile noting the different tug usage in the major declared ports, for example, given that there is no actual regulation or legislation governing the use of tugs in those ports. General guidelines as to the number of tugs and lines-boats recommended for the various types of ships, including tankers, have been developed and/or borne out through local practice. It is true to say that legislation does normally provide for the Harbour Master to have significant powers of intervention if safety was jeopardised in any way. Further information in this respect can be made available to the Productivity Commission if required, but as a general rule it is notable that in the ports of Port Botany and Port Jackson, there tends to be higher tug usage than in other similar ports in Australia. For example, average tug jobs per ship call in 2001 were 3.30 at Port Jackson and 3.35 at Port Botany compared to 2.35 in Melbourne and 3.06 in Brisbane (source: Adsteam's ACCC submission – December 2001).

Prices and quality of service

The range of towage charges levied generally cover tugs for berthing, sailing or moving the vessel along the berth or to a buoy. The basis of the charges are generally on GRT or DWT of vessels by the number of tugs used, and in some cases this is all built into the one fee.

As one would expect, there have been variations in towage prices in different ports and it is important to recognise the problems associated with drawing direct comparisons in terms of number of tug movements per annum in individual ports, types of vessels, port conditions, and so on. Changes in recent years in the declared ports were clearly spelled out in the ACCC investigation, and in the non-declared ports some further information is contained in Appendix C to this submission.

Rebates were recently introduced by Adsteam following its float on the Stock Exchange, generally based on levels of towage usage Australia-wide, and obviously this is not available to all who cannot reach the threshold levels and/or do not have Australia-wide usage. Other than that there have not been many major changes in the structure of charges over a number of years, and there are no price negotiations with users that SAL is aware of (other than perhaps rebate arrangements).

SAL would hope that tug operators other than Adsteam will participate fully in this inquiry, and particularly comment on their pricing regimes. The key quality requirements for harbour towage services as far as shipowners are concerned include 24-hour service and call-out times. SAL understands that this is a common arrangement in most ports of the world. There has not really been an improvement or deterioration in the quality of service at ports where harbour towage services are declared.

Investment and financial performance

One of SAL's major concerns is that tugs are removed or introduced into ports without consultation with industry. In the past, the investment criteria was based on port requirements, for example a Port Authority, Harbour Master/Pilot, end-users, etc., and this generally determined what type and number of tugs were required for a specific port. Whereas consultation was at a reasonably good level in the past, this has not been the case in recent years and, sadly, was lacking in the most recent case of price increases.

Guided by the ACCC conclusion in its recent investigation of the notification under the Prices Surveillance Act, one would have to agree that excess profits are apparently now being earned by Adsteam in the ports that were the subject of that inquiry. One of SAL's major concerns expressed during that inquiry was that revenue was being increased without specific and sufficient attention being given to potential cost reductions.

It is acknowledged that there will be variability in returns between ports, given the variability in the level of activity at those ports, but it is interesting that in recent years there have been lower, or no, increases in a number of the non-declared ports.

2.2 COMPETITION AND MARKET POWER IN TOWAGE SERVICES

Barriers to entry

Economies of scale and scope

It is true to say that there are undoubtedly economies of scale and economies of scope for a single firm operating at a number of ports. However, this does not necessarily mean in Australian ports, as large operators overseas can achieve many of those benefits even if they only operate in one or a few ports in Australia. SAL is aware of potential competitors to Adsteam that could provide the required level of services at lower costs than those currently charged by Adsteam, if they had an exclusive license for a period of time to recover entry costs.

As pointed out by the National Farmers' Federation (NFF) in their submission to the ACCC in its recent inquiry, contestability of towage markets in Australia is low and clearly there is a strong natural monopoly operating in a number of ports. As the NFF pointed out in their submission (page 6), "As noted by Queensland Transport[1], the towage sector is characterised by a high degree of concentration (p5) and several recent reports by the Victorian Regulator General and the ACCC[2] have concluded that towage is a natural monopoly. The ACCC and Productivity Commission[3] also argue the view that sunk costs are high and there is a lack of competitive rivalry, implying that contestability of the markets is low."

It is worth noting in the report prepared for the Queensland Transport by Economic Associates Pty Ltd (on page iii) that previous reports by the ACCC have not found that the major towage operators in Australia abuse their market power. Clearly this is now not the case.

On page 22 of that report, it notes again that the towage market exhibits characteristics of weak contestability.

It is interesting that on page 46 of the 1995 ACCC report into harbour towage declaration, reference is made to BHP Transport successfully entering the towage market in the port of Newcastle. As it turned out, such competition could not be sustained. Although the reasons for that result can be debated, it does reinforce the fact that the towage market, in a large number of ports in Australia, bears all the characteristics of a pure natural monopoly.

Whilst technically there could be advantages (i.e. economies of scope) arising from the provision of related services such as salvage operation and mooring lines, without any competition it is doubtful that such savings will be passed back to users.

Because of the small market in Australia, there have been several amalgamations of towage firms over recent years, as pointed out in the Issues Paper, but shipping Lines have not seen any cost savings from this process. In fact, to the contrary, following the acquisition of Howard Smith there would have been substantial administrative savings, for example, which again do not appear to have been factored into Adsteam's new pricing regime in the ports that were the subject of the recent notification under the PSA. Economies of scale and scope that came with that acquisition also have not, in SAL's view, been reflected in lower prices.

Lumpy investments and sunk costs

It is SAL's understanding that the costs of entry (and exit) into towage services in Australia would be relatively high. Either building new tugs or bringing tugs from overseas would be an expensive exercise; such costs would obviously not have to be recovered by the incumbent operator in a head to head competitive situation in an

1 National Competition Policy review of the *Transport Infrastructure Act 1994* Harbour towage provisions prepared for Queensland Transport by Economic Associates Pty Ltd.

2 Office of the Regulator-General, Victoria (1999) *Review of Port Services Price Regulation,* Draft Report, November and Australian Competition and Consumer Commission (ACCC 1995) *Inquiry into the Harbour Towage Declaration,* December.

3 ACCC *ibid*, Productivity Commission (1998) *International Benchmarking of the Australian Waterfront*.

individual port. Exit from the market would also not be costless, but the best way of achieving competition, in SAL's view, is an exclusive license in an individual major port, although in some cases there could be a case for extending such licenses across a number of ports. It is considered that less tugs could be used in some ports, for example in SAL's opinion Melbourne could be efficiently serviced with five tugs – three Z pellers and two 29m conventional twin-screw tugs. This would mean that one tug could be sold.

There are no exclusive licensing arrangements in most ports in Australia. Leasing of tugs is a viable entry strategy, but again individual markets in Australia for towage are too small to provide a sustainable business for more than one tug operator.

SAL believes the best potential alternative providers of towage services at Australian ports are other local or overseas towage companies. SAL can foresee difficulties in capital city Port Authorities in Australia in providing towage services or towage assets for subsequent lease by towage operators.

The level of capital expenditure required may not be agreeable to their stakeholder State Governments, and in addition such Governments now tend to focus on the land-based port model that leaves ancillary services to be provided by private enterprise. Such a move into purchasing towage assets could be considered contrary to such a policy. In the past, some ports have purchased tugs but it has been, and remains, the exception rather than the rule.

Shipping conferences do not provide a credible threat of entry into harbour towage. Shipping companies do not believe they are expert enough in the running of towage companies, but that does not mean that they cannot form advantageous alliances with towage operators. SAL is not aware of any recent examples in Australia or overseas of new entry into towage markets other than by acquisition. In SAL's view, the threat of entry into harbour towage services is low even if prices are initially high. In other words, once there was a competitor, for example to Adsteam, there would be no reason why they could not substantially lower those prices to compete. Albeit, it then begs the question why do they need competitors to reduce rates? The possibility of new entry would vary between ports, if only because of the large variation in ship movements between different ports. However, there may be a case in some bulk ports for the major commodity exporters in those ports to consider owning tugs, and this, in effect, occurs in the port of Weipa in North Queensland and, more recently, the Ports of Hedland, Dampier, Port Walcott and Hay Point.

Other barriers to entry

SAL strongly believes that exclusive licensing of towage operators by Port Authorities, over say a seven year period, with an open tender system being instituted at the beginning and end of the exclusive license will overcome the problem with barriers to entry. In SAL's view, this serial competition is the best way of introducing competition into the Australian towage market.

These licenses would include safety, minimum service requirements, when vessels could be released for emergency or salvage operations, as well as the prices that would prevail during the term of the exclusive license.

Whilst seven years may be considered relatively short by a new, potential competitor, it would allow recovery of the original entry costs and then that competitor should be subject to the full impact of open competition for the subsequent seven-year license period.

The demand for towage services at particular ports

Eventually increased towage costs will flow through to exporters and in some cases, as in oil, it could flow through reasonably quickly into the domestic market. Initially, however, it often has to be borne by either the liner or bulk operator, but, as mentioned earlier in this submission, additional costs for service providers can result in lower services, which in turn can affect the costs of Australian exporters. SAL has also addressed earlier the issue of who determines requirements for towage and related services entering Australian ports.

It has also been mentioned previously that increased vessel technology should tend to increase manoeuvrability in the future, but probably not at the rate of change that has occurred over the last five years or so.

There is not a great deal of competition between main Australian ports, and certainly rail transport is not at the standard to facilitate effective landbridging. Perhaps this will change in the future, but it is not likely to in the short to medium-term.

SAL understands that Port Corporations are concerned at the costs of towage services in their ports, and SAL would hope that they would see the value in exclusive licensing arrangements.

Port Authorities could threaten to provide towage services themselves and can certainly influence towage arrangements through licensing requirements. However, there is the issue of whether a Port Authority is in a good position to be more efficient in the provision of towage services than professional and worldwide towage companies, and SAL is aware of a number of major competitors that would be interested in entering the Australian market that could most likely provide a more competitive and efficient service than Port Authorities. However, there could well be cases, particularly in bulk ports, where the major users and the Port Authority could agree to the Port Authority providing towage services, and this option should not be discounted.

Countervailing power?

In the view of shipping Lines and shipping Agents, there is no real countervailing power to a natural monopoly provider with towage services like Adsteam, with the exception of the licensing power of Port Authorities. Shipping Conferences have never collectively negotiated towage charges or pilotage charges, as these are left to the ship operator, which in some cases can be on behalf of a Consortium. Nevertheless, all types of shipping have no real negotiating power because there is no viable or sustainable alternative without, in SAL's view, an exclusive licensing arrangement. Demand for the service is created in effect by the exporters and importers, and therefore there is no possibility of reducing usage of tugs in an effort to lower prices. Again, because of the lack of competition between ports in Australia, it is not really viable, at this point in time, to reduce port calls. This is particularly evident in the bulk shipping industry.

There is very little negotiation, at the present time, on towage prices and/or service levels with users of towage services, which does not appear to vary much between ports. As mentioned earlier in this submission, even the level of general consultation between port users and towage providers has declined in recent years.

It was hoped that the current prices oversight under the Prices Surveillance Act would assist in providing a substitute for such negotiation, but Adsteam has clearly shown that it is ineffectual.

Volume rebates are a tying-in mechanism and can obviously result in lower prices than those that do not receive a rebate, and presumably the level of rebate and method of applying the rebate could be subject to some level of negotiation.

Cost share of towage services

Generally, for all types of shipping the average of the ship-based costs at a port consumed by towage would be close to a third.

Evidence of misuse of market power?

The ACCC has clearly shown that, at least in declared ports, in their view excessive profits are being earned by the monopoly towage provider. The industry is concerned that the diesel fuel rebate has not been fully passed on, nor the efficiency and higher productivity arising from the reduction in manning levels from four to three. The issue of transparency in relation to the diesel fuel rebate is now being sought by a number of shipping Lines from Adsteam.

In relation to reduced manning levels, whilst one-off redundancy costs can impact on the bottom level, SAL believes that such reductions will yield long-term costs savings, but when these are mixed up in the costs and returns of Adsteam generally it is not possible to be clear that such savings have in fact been passed on. In an Adsteam press release dated February 8, 2000, Mr Clay Fredericks stated that, “Adsteam intends to make Australian towage more cost competitive. We believe this will create significant benefits for business, and ultimately for consumers.” In a subsequent press release dated February 16, 2000, Mr Fredericks stated, “Our customers know this [that three man crews are becoming the norm in most developed international ports] and expect us to move forward with our programme and pass on the cost savings to them in the form of reduced towage costs.” Shipping Line customers are still waiting for those reduced towage costs.

SAL would also add that not so long ago tug manning reduced from a maximum of eight in some ports to standard manning of four under similar arrangements as presently espoused to a reduction to three crew on a number of tugs, and yet the previous reductions were not followed by significant towage price increases as occurred as a result of the recent notification. SAL reiterates the view that a number of other efficiency measures could be introduced that would deliver substantial savings, such as a reduction in the number of crews in some ports.

The experience of price changes at selected non-declared ports is set out in Attachment C. In addition, there has been a rumour that a very substantial increase in towage costs could shortly be sought in the port of Mackay in North Queensland, and this would be a most disturbing development.

Impact of market power

It is SAL’s view that Adsteam have clearly exercised their market power in recently imposing the significant cost increases in a number of the declared ports. The issue of volume rebates needs to be fully debated as it could be argued that smaller users do, as a result, bear a greater share of the fixed costs of providing an individual towage service.

2.3 INCREASING COMPETITION AND OPTIONS FOR PRICES OVERSIGHT

Increasing competition in the provision of harbour towage services

As stated earlier in this submission, a natural monopoly occurs in this market, and there are serious impediments because of the costs of entry (and exit) to increasing competition in harbour towage in Australian ports. In other words, contestability is weak. This is compounded by the lack of competition between major ports in Australia, whether they are primarily container ports or bulk ports.

It is not believed that impediments to increasing competition arise from current regulatory or structural arrangements, except that there has been a reluctance, in the past, for Port Corporations and their stakeholder Governments (where relevant) to implement exclusive licensing arrangements.

Licensing and competition

In SAL's view, Port Authorities have the appropriate incentives to encourage efficient, including cost efficient, towage services in order to promote their port, although given the lack of competition between main ports it may not be a significant incentive. It could be anticipated that the recent massive price increases will encourage Port Authorities and their stakeholder Governments to take a closer interest in the provision of towage services in their ports. However, the reluctance of some State Governments to allow their Port Authorities to undertake the step of introducing exclusive licenses should not be underestimated. Non-exclusive licenses could well have initial attraction for a range of reasons and they will have to be persuaded of the benefits of moving to an exclusive license.

Only a few ports in Australia, SAL understands, have an exclusive licensing arrangement (Gladstone and Bunbury are examples). A number of ports have non-exclusive licenses which can cover stable prices or agreed price variations for the period of the license, which can set out express terms and conditions for operating within the port over say a five year period with increases being based on the Consumer Price Index. The ports of Geraldton and Fremantle would be examples that would fall into that category.

The disadvantage with that type of arrangement is the difficulty of a competitor being able to match or beat the incumbent in terms of subsequent price reductions if they try to enter the market. In return for an exclusive license, it is understood that there would be strong competition for such a license from a number of towage operators both in the Australian and non-Australian trades, including some fairly large worldwide towage operators. The Fremantle Port Authority could possibly provide the Commission with more information in relation to that issue.

It is considered that those ports that have issued exclusive licenses have been successful, in terms not only of containing costs but in reducing costs and maintaining the required level of services.

In SAL's view, it is important that an exclusive license would include issues over and above those of price, including operating conditions, provision of safety services such as fire-fighting, whether some assets should be of dual-purpose to enable assistance for emergencies outside the port, and on what conditions should that tug be released for such services. Importantly, such licenses should be developed in close consultation with port users.

Whilst a non-exclusive license would appear to be initially attractive, it does not solve the problem of high entry costs into the market.

SAL would strongly advocate the Productivity Commission recommending that ports and their stakeholder State Governments or private operators give serious consideration to introducing exclusive licensing for a seven-year period in order to introduce serial competition into this market.

With the exception of New Zealand, SAL understands that not many overseas ports have introduced exclusive licenses, but it should be borne in mind that in many ports overseas there is already more than one towage operator. In addition, there could be much stronger competition between ports, which would tend to apply some pressure on towage prices in an individual port. The relatively small market in Australia on an individual port basis could call for a different solution and, in SAL's view, that would be exclusive licenses.

Prices oversight

SAL was very disappointed at the result of the ACCC investigation under Section 22 of the Prices Surveillance Act. It was a costly review, for a number of parties, with almost all users and others involved with Australia's overseas trade arguing strongly that the proposed cost increases were not justified.

In the view of SAL, the Prices Surveillance Act is not an effective means of dealing with the significant market power in the provision of harbour towage services of Australia's major ports.

In SAL's view, there have been no efficiency gains from such a prices oversight and changing the structure of the industry via exclusive licenses on an individual port basis will be much more effective in at least providing some level of competition over time, and therefore price restraint. SAL would not support the continuation of declaration of harbour towage services under the Prices Surveillance Act.

Alternative prices oversight mechanisms

It is generally understood that in the United States there is Port Authority/State Regulatory control in at least ensuring that prices do not exceed the local port tariff; such prices being negotiated direct with the user.

It is understood that in Europe there is very little regulation; towage contracts being directly negotiated on a commercial basis between the operator and end-user. Towage tariffs tend to be on a "zonal" basis depending upon ship size, type and geography in the ports. It is understood there is no exclusive licensing in Europe because of their size (e.g. number of towage operators in a port) and, more importantly, the high level of competition between ports in Europe.

If the Productivity Commission does not recommend exclusive licensing on a port by port basis, and/or such recommendation is not accepted by Port Authorities and their stakeholder State Governments, then as a last resort there is, in SAL's view, a need to examine prices oversight. This could take the form of:

a) monitoring of prices similar to what occurs in the stevedoring industry in Australia, but to also include nominated bulk ports, and

b) a Regulator determining directly, or indirectly, (e.g. as pointed out by the PC via a price-cap formula or allowable rate of return) allowable prices and/or the rate of allowance price increases, or

c) some reformulation of the Competition Notice as set out in Section 151AJ of the Trade Practices Act. It is appreciated that this relates primarily to access in regard to the telecommunications market, but possibly a Section of the Act could be constructed to allow the issuing of cease and desist orders if the incumbent operator was found to be engaging in predatory pricing to drive out a competitor, and the pricing situation could be the subject of an inquiry by the ACCC.

SAL clearly views such prices oversight as the least desirable option and would only support it if there is no other way of introducing some sort of realistic competition, such as serial competition, into the towage market in Australia.

In effect, the above type of legislation would be considered industry-specific legislation even though it could well reside in the Trade Practices Act.

The Issues Paper asks what information should be collected under any proposed monitoring programme, and it is suggested this cover such areas as tariff rates, rebate criteria, level of services including assets employed, and, importantly, the seeking of users' comments on the towage services and prices levied. It would be recommended that this monitoring programme cover all ports of any reasonable size which have an individual towage provider. This exercise should be carried out every twelve months and reviewed in, say, five years time.

end

SHIPPING AUSTRALIA LIMITED MEMBERS – January 2002

FULL MEMBERS

Adsteam Marine Limited
ANL Container Line Pty Ltd
APL Lines (Australia)
Barwil Agencies Oceania
Beaufort Shipping Agency Co
Columbus Line Australia Pty Ltd
CP Ships (UK) Limited
FESCO Lines Australia Pty Ltd
Five Star Shipping & Agency Co Pty Ltd
Hapag-Lloyd (Australia) Pty Ltd
Hetherington Kingsbury Shipping Agency
Patrick Shipping
Inchcape Shipping Services
John Swire & Sons Pty Ltd
"K" Line (Australia) Pty Limited
McArthur Shipping & Agency Company
Maersk Australia Pty Ltd
MISC Agencies (Australia) Pty Ltd
Mediterranean Shipping Company (Aust) Pty Limited
Mitsui OSK Lines (Australia) Pty Ltd
NYK Line (Australia) Pty Ltd
OOCL (Australia) Pty Ltd
P&O Nedlloyd Limited
RCL (Australia) Pty Ltd
Wallenius Wilhelmsen
Zim Shipping Australasia Pty Ltd

CONTRIBUTING MEMBERS

Compagnie Martime Marfret
Consortium Hispania Lines
Contship Container Lines Ltd
COSCO Container Lines
Hyundai Merchant Marine
Neptune Shipping Line Pty Ltd
P&O Swire Containers Ltd
P.T. Djakarta Lloyd (Persero)
Pacific Forum Line (NZ) Ltd
Pacific International Lines Pty Ltd
Yangming Marine Transport Corp

CORPORATE ASSOCIATE MEMBERS

Albany Port Authority
AVECS Pacific Pty Ltd
Blake Dawson Waldron
Brisbane Marine Pilots
CSX World Container Terminals Adelaide
Ebsworth & Ebsworth
Flinders Ports South Australia
Maritime Container Services Pty Ltd
Middletons
Norton White
P&O Ports
Phillips Fox Lawyers
Port Kembla Port Corporation
Port Phillip Sea Pilots Pty Ltd
PricewaterhouseCoopers Legal
Queensland Rail
Sydney Ports Corporation
Sydney Sea Pilots
Transport Mutual Services
Victorian Channels Authority

INDIVIDUAL ASSOCIATE MEMBERS

David Baker
Sergio Balacco
Alan Barnes
Peter Bartholomeusz
Paul Bunting
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Jonathon Duggan
Henning Harders
Victor Paino
Roger Pettman
Tony Redrup
Richard St John Stephens
Colin Stein
Ajay Tandon

INCHCAPE SHIPPING SERVICES

TOWAGE SERVICES - AUSTRALIA

LAUNCH SERVICES - AUSTRALIA

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
GOVE								
Tug	Queensland Tug & Salvage	Gulf Explorer	Twin Screw Steerable Nozzle	30	Adsteam Marine	100	Adsteam Marine	100
	Pty Ltd	Biloea	Twin Screw Steerable Nozzle	43		100		
Launch	Nabalco					100	Adsteam Marine	100
						100		
Line	Nabalco							
WEIPA								
Tug	Weipa Marine Services	Bellarine	Twin Screw Steerable Nozzle	41	Comalco	100	Queensland Tug & Salvage	100
		Comalco Beagle	Twin Screw Fixed Nozzle	23	Comalco			
		Comalco Jupiter	Twin Screw Fixed Nozzle	46	Comalco			
Launch	Weipa Marine Services				Queensland Tug & Salvage			
Line	Weipa Marine Services							
GROOTE EYLANDT								
Tug	Gemco	Yirumba	Twin Screw Fixed Nozzle	30	Gemco	100		
		Makada	Single Screw Fixed Nozzle	16				
Launch	Gemco				Gemco			
Line	Gemco							
CAIRNS								
Tug	North Queensland Marine	Babinda	Twin Screw Steerable Nozzle	15	Adsteam marine	100	Adsteam Marine	100
	Towage Pty Ltd	Hamilton	Single Screw Fixed Nozzle	27				
Launch	Cairns Port Authority							
Line	North Qld Shipping Services Pty Ltd							
MOURILYAN								
Tug	North Queensland Marine	Otto Assman	Single Screw Fixed Nozzle	32	Adsteam Marine	100	Adsteam Marine	100
	Towage Pty Ltd							
Launch	Port Corporation of Queensland							
Line	North Qld Shipping Services Pty Ltd							

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
TOWNSVILLE								
Tug	North Queensland Marine	Burdekin	Twin Screw Steerable Nozzle	33	Adsteam Marine	100	Adsteam Marine	100
	Towage Pty Ltd	Giru	Z-Peller	47	Adsteam Marine			
Launch	North Queensland Marine	Werra	Z-Peller	45	Adsteam Marine	100	Adsteam Marine	100
	Towage Pty Ltd							
Line	North Queensland Marine		2 Lines Boats			100	Adsteam Marine	100
	Towage Pty Ltd				Adsteam Marine			
ABBOT POINT (BOWEN)								
Tug	Queensland Tug & Salvage	Denison	Z-Peller	56	Adsteam Marine	100	Adsteam Marine	100
	Pty Ltd	Gloucester	Z-Peller	56				
Launch								
Line	Abbot Point BulkCoal Pty Ltd							
MACKAY								
Tug	North Queensland Marine	Wyambi	Twin Screw Steerable Nozzle	41	Adsteam Marine	100	Adsteam Marine	100
	Towage Pty Ltd	Challenger	Z-Peller	51				
Launch								
Line	Mackay port Authority							
HAY POINT								
Tug	BHP Transport	Belyando	Twin Screw Fixed Nozzle	75	BHP Transport	100		
		Broadsound	Twin Screw Fixed Nozzle	75				
Launch	BHP Transport							
Line	BHP Transport & Logistics Pty Ltd							
DALRYMPLE BAY								
Tug	Half Tide Marine Pty.Ltd	Koumala	Z-Peller	55	Half Tide Marine Pty.Ltd	100		
		Kungurri	Z-Peller	55	(Owned by Terminal Users)			
Launch	Half Tide Marine Pty.Ltd							
Line	Dalrymple Bay Coal Terminal Pty Ltd							

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
GLADSTONE								
Tug	Gladstone Tug Services Pty Ltd	Tom Tough	Z-Peller	46	Queensland Tug & Salvage	100	Adsteam Marine	100
		Wistari	Z-Peller	46	Pty Ltd			
		Kuttabul	Z-Peller	50				
Launch	Gladstone Port Services		5 Lauches		Gladstone Port Services Pty.Ltd	100		
	Lines Running Services		4 Launches		Adelaide SteamShip Industries	100	Adsteam Marine	
Line	At private berths the terminal employees do the lines							
	At GPA berths the Port Authority do the lines							
BUNDABERG								
Tug	Queensland Tug & Salvage Pty Ltd	Mclarty	Twin Screw Fixed Nozzle	33	Adsteam Marine	100	Adsteam Marine	100
Launch	B.J. & J.M. Searle							
Line	S.J. Searle							
BRISBANE Declared Port under PSA								
Tug	Queensland Tug & Salvage Pty Ltd	Austral Salvor	DuckPeller	63	Adsteam Marine	100	Adsteam Marine	100
		Bulimba	Twin Screw Steerable Nozzle	42				
		Clontarf	Z-Peller	63				
		Willara	Z-Peller	47				
		Redcliffe	DuckPeller	63				
Launch	Wright's Launches Services							
Line	At MUA Wharf- MUA Labour provides Linesmen				P & O or Patrick			
	At Oil Tanker Wharf-ES Randle & Co provide Linesmen				E.S.Randle & Co	100	Private Company	
	At Coal terminal-Terminal Staff				E.S.Randle & Co			
NEWCASTLE Declared Port under PSA								
Tug	Hunter towage Services Pty.Ltd	Wattagan	Z-Peller	47	Waratah Towage Pty Ltd	100	Adsteam Marine Limited	100
		Wato	Z-Peller	47				
		Warrawee	Z-Peller	50				
		Carrington	Voith Schneider	48				
		Wickham	Voith Schneider	48				
		Mayfield	Voith Schneider	48				
Launch	Lovett McCraken & Bray							
	Newcastle Port Marine Linesmen							
Line	Lovett McCraken & Bray							
	Newcastle Port Marine Linesmen							

ATTACHMENT B

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
SYDNEY Declared Port under PSA								
Tug	Waratah Towage Pty Ltd	Wonga	Z-Peller	50	Adsteam Marine Limited	100	Adsteam Marine	100
		Beltana	Z-Peller	60				
		Walan	Z-Peller	60				
		Wooree	Twin Screw Steerable Nozzle	41				
		Wolli (Spares)	DuckPeller	28				
Launch	Stannard Brothers					100	Adsteam Marine	100
					Adsteam Marine Limited			
Line	Stannard Brothers						Adsteam Marine	100
					Adsteam Marine Limited	100		
PORT BOTANY Declared Port under PSA								
Tug	Waratah Towage Pty Ltd	Wilga	Z-Peller	50		100	Adsteam Marine	100
		Bullara	Z-Peller	60	Adsteam Marine Limited			
		Woona	Z-Peller	50				
Launch	Stannard Brothers					100	Adsteam Marine	100
					Adsteam Marine Limited			
Line	Stannard Brothers					100	Adsteam Marine	100
PORT KEMBALA								
Tug	Adsteam Towage Pty Ltd	Korimal	Z-Peller	40	Adsteam Marine Limited	100	Adsteam Marine Limited	100
		Koona	Z-Peller	50				
		karoo	Z-Peller	50				
		Kembla II	Twin Screw Steerable Nozzle	40				
Launch	Stannard Brothers	4 Launches			Adsteam Marine Limited	100		
Line	Stannard Brothers							
	BHP No 1 Product Berth, BHP No1& No2 Discharge Berth							
MELBOURNE Declared Port Under PSA								
Tug	Melbourne Tug Services Pty Ltd	Marimba	Twin Screw Steerable Nozzle	41	Adteam Marine	100	Adsteam Marine	100
		Corsair	Twin Screw Steerable Nozzle	41				
		Gabo	Z-Peller	52				
		Kerra	Z-Peller	52				
		Gurrong	Z-Peller	65				
Launch	Holland Launch Services	6 Launches			Adsteam Marine	100	Adsteam Marine	100
Line	Melbourne Mooring Service	Line			Melbourne Mooring Service	100		
	Skilled Maritime Services Pty Ltd				Skilled Engineering	100		

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
GEELONG								
Tug	Geelong Port Services Pty Ltd	Edina	Twin Screw Steerable Nozzle	41	Adsteam marine	100	Adsteam Marine	100
		Macedon	Twin Screw Steerable Nozzle	41				
Launch	Howard Smith Towage	2 Launches			Adsteam Marine	100	Adsteam Marine	100
Line	Victorian regional stevedores				P & O Ports			
	Lewmarine Pty Ltd				Lewmarine Pty. Ltd.			
PORTLAND								
Tug	North Western Shipping & Towage Pty Ltd	Cape Grant	Z-Peller	40	North West Shipping and Towage	100		
		Cape Nelson	Z-Peller	40				
Launch	North Western Shipping & Towage Co P/L							
Line	Port of Portland Pty Ltd			100	AIF Pty Ltd			
BURNIE								
Tug	North Western Shipping & Towage Pty Ltd	Sirius Cove	Twin Screw Steerable Nozzle	40	North West Shipping and Towage	100		
		Spring Cove	Single Screw Fixed Nozzle	26				
Launch	Burnie Port Authority							
Line	Burnie Port Authority							
LAUNCESTON								
Tug	North Western Shipping & Towage Pty Ltd	Yorktown	Twin Screw	32	North West Shipping and Towage	100		
		Farm Cove	Single Screw Fixed Nozzle	30				
Launch	Filgate Enterprise							
Line	Morrah Marine Services							
RISDON								
Tug	Hobart Tug Company	Cape Raoul	Twin Screw	25	North West Shipping and Towage	100		
		Keira	Single Screw Fixed Nozzle	40				
		Myalla	Twin Screw	15				
		Storm Cove	DuckPeller	26				
		Tarragal	Twin Screw	28				
Launch	Hobart Tug Company							
Lines	Pasminco							

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
HOBART								
Tug	North Western Shipping & Towage Pty Ltd	Cape Raoul	Twin Screw	25	North West Shipping and Towage	100		
		Keira	Single Screw Fixed Nozzle	40				
		Myalla	Twin Screw	15				
		Storm Cove	DuckPeller	26				
		Tarragal	Twin Screw	28				
Launch	Hobart Port Authority							
Line	Hobart Port Authority							
WESTERN PORT								
Tug	Howard Smith Towage Pty Ltd	Cooma	Z-Peller	52	Adsteam Marine	100	Adsteam Marine	100
		Hastings	Z-Peller	52				
Launch	Lewmarine Pty Ltd				Lewmarine Pty Ltd	100		
Line	Lewmarine Pty Ltd				Lewmarine Pty Ltd	100		
PORT STANVAC								
Tug	Mobil Refining Aust Pty Ltd	Pegasus	Twin Screw	25	Mobil Refining Aust Pty Ltd	100		
Launch	Mobil Refining Aust Pty Ltd				Mobil Refining Aust Pty Ltd			
Line	Mobil Refining Aust Pty Ltd				Mobil Refining Aust Pty Ltd			
ADELAIDE Declared Port Under PSA								
Tug	Ritch & Smith Pty Ltd	Tingari	Z-Peller	60	Adsteam Marine Limited	100		
		Tapir	Twin Screw Fixed Nozzle	43				
		Tarpan	Z-Peller	50				
		Tusker	Z-Peller	50				
Launch	Ports Corp S.A.							
Line	Ports Corp S.A.							
WALLAROO								
Tug	Port Lincoln Tugs Pty Ltd	Lucinda	Twin Screw Fixed Nozzle	27	Adsteam Marine Limited	50	Adsteam Marine	100
					Stannard Brothers	50		
Launch	Ports Corp S.A.							
Line	Ports Corp S.A.							

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
PORT PIRIE								
Tug	Ritch & Smith Pty Ltd	Tanunda	Twin Screw Fixed Nozzle	33	Adsteam Marine Limited	100		
		Ungarra	Twin Screw Fixed Nozzle	13				
Launch	Ports Corp S.A.							
Line	Ports Corp S.A.							
WHYALLA								
Tug	Ritch & Smith Pty Ltd	Taminga	Z-Peller	50	Adsteam Marine Limited	100		
		Turmail	Single Screw Fixed Nozzle	30				
Launch	Ports Corp S.A.	Wanilla	Single Screw Fixed Nozzle	7				
Line	Ports Corp S.A.							
PORT LINCOLN								
Tug	Port Lincoln Tugs Pty Ltd	Kiolia	Twin Screw Fixed Nozzle	40	Adsteam Marine Limited	50	Adsteam Marine	100
					Stannard Brothers	50		
Launch	Ports Corp S.A.							
Line	Ports Corp S.A.							
THEVENARD								
Tug	Port Lincoln Tugs Pty Ltd	Wiabuna	Twin Screw Fixed Nozzle	20	Adsteam Marine Limited	50	Adsteam Marine	100
		Wandana	Twin Screw Fixed Nozzle	11	Stannard Brothers	50		
Launch	Ports Corp S.A.							
Line	Ports Corp S.A.							
ESPERANCE								
Tug	McKenzie Tug Services Pty Ltd	Cape Le Grand 2	Twin Screw	31	McKenzie Tug Services Pty Ltd	100	McKenzie Family Nominees P/L	100
		Cape Arid	Twin Screw Fixed Nozzle	28				
Launch	McKenzie Tug Services Pty Ltd				McKenzie Tug Services Pty Ltd	100	McKenzie Family Nominees P/L	100
Line	Esperance Port Authority							
ALBANY								
Tug	Fremantle Tug Operators Pty Ltd	Elgin	AquaMaster	40	Adsteam Marine Limited	50	Adsteam Marine	100
		Wandilla	Twin Screw	32		50		
Launch	Albany Tug Services				Albany Tug Services	100	Bairstow Family	100
Line	Albany Tug Services				Albany Tug Services	100	Bairstow Family	100

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
BUNBURY								
Tug	Riverwijs Pty Ltd	Riverwijs Grace	Z-Peller	43	Riverside Marine	50		
		Riverwijs Isabella	Z-Peller	43	Wijsmuller	50		
Launch	Stirling Harbour Services				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
Line	Stirling Harbour Services				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
KWINANA								
Tug	Kwinana Towage Services Pty Ltd	Bunbury	Z-Peller	40	Medina Maritime Services Pty Ltd	100	Adsteam Marine	100
		Champion	Z-Peller	51				
Launch	Stirling Harbour Services				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50	Adsteam Marine	
Line	Stirling Harbour Services				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
FREMANTLE Declared port Under PSA								
Tug	Fremantle Tug Operators Pty Ltd	Wambiri	Z-Peller	62	Swan River Steamship Co	50	Adsteam Marine	100
					Adelaide Steamship Industries	50		
		Wyong	Z-Peller	51				
		Burra	Aquamaster	60				
Launch	Stirling Harbour Services				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
Line	Harbour Launch Company				Harbour Launch Company	100	Solomon Family	100
GERALDTON								
Tug	Stirling Harbour Services	Beacon	Z-Peller	28	Howard Smith Ltd	50	Adsteam Marine	100
		Pelsaert	Z-Peller	28	Adsteam Marine Limited	50		
Launch	Geraldton Port Authority				Geraldton Port Authority			
Line	Geraldton Port Authority							
USELESS LOOP								
Launch	Marshall Hipper & Sons				Marshall Hipper & Sons			
Lines	Shark Bay Resources				Clough Resources		Clough Engineering	
CAPE CUVIER								
Tug	Dampier Salt Pty Ltd	Boolathana	Twin Screw	24	Dampier Salt Pty Ltd	100	Rio Tinto Ltd	
		Pilbra Neptune	DuckPeller	28				
Launch	Dampier Salt Pty Ltd				Dampier Salt Pty Ltd	100	Rio Tinto Ltd	
Line	Dampier Salt Pty Ltd				Dampier Salt Pty Ltd	100	Rio Tinto Ltd	

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
DAMPIER								
Tug	Mermaid Sound Port & Marine Services	Crowrie Cove	Z-Peller	50	Woodside Petroleum Pty Ltd	100	Woodside Petroleum	100
		Hearsome Cove	Z-Peller	50				
		King Bay	Z-Peller	50				
		Withnell Bay	Z-Peller	50				
	Pilbra Harbour Services Pty Ltd	Pilbara Comet	Z-Peller	45	Hamersley Iron Pty Ltd	100	Rio Tinto Ltd	100
		Pilbara Mars	Z-Peller	45				
		Pilbara Saturn	Z-Peller	50				
		Pilbara Star	Z-Peller	50				
	Mermaid Marine Group Pty Ltd	Mermaid Chieftan	Pitch Propeller	22	Mermaid marine Group Pty Ltd	100		
		Mermaid Cominado	Pitch Propeller	15.5				
		Mermaid Warrier	Pitch Propeller	12				
		Mermaid titan	Twin Screw	9				
Launch	Mermaid Marine Group Pty Ltd				Mermaid Marine Group Pty Ltd	100	Mermaid Marine Group Pty Ltd	
HAMERSLEY IRON & DAMPIER SALT BERTHS								
Line	Hamersley Iron Pty Ltd				Hamersley Iron Pty Ltd	100	Rio Tinto Ltd	100
WOOD SIDE BERTHS								
NO LINES NO LAUNCHES								
CAPE LAMBERT(PORT WALCOTT)								
Tug	Robe River Iron Associate	Lambert	Z-Peller	60	Peco Wallsend Operations Ltd	35	North Broken Hill Peko Ltd	100
		Panawanica 1	Z-Peller	60	Robe River Mining Co Pty Ltd	30		
					Mitsui Ore Development Pty Ltd	20		
					Pannawonica Iron Associates	10		
					Cape Lambert Iron Associates	5		
Launch	Robe River Iron Associate				Peco Wallsend Operations Ltd	35	North Broken Hill Peko Ltd	100
					Robe River Mining Co Pty Ltd	30		
					Mitsui Ore Development Pty Ltd	20		
					Pannawonica Iron Associates	10		
					Cape Lambert Iron Associates	5		
Line	Robe River Iron Associate				Peco Wallsend Operations Ltd	35	North Broken Hill Peko Ltd	100
					Robe River Mining Co Pty Ltd	30		
					Mitsui Ore Development Pty Ltd	20		
					Pannawonica Iron Associates	10		
					Cape Lambert Iron Associates	5		

Port	Name of the Operator	Equipment	Type	Bollard Pull	First Owners	%	Subsequent Owners	%
PORT HEDLAND								
Tug	BHP Transport Pty Ltd	Coongan	Z-Peller	50	BHP Ltd	100		
		Curunna	Z-Peller	50				
		De Grey	Twin Screw CP	53				
		Turner	Z-Peller	50				
		Warang	Z-Peller	50				
		Warilla	Z-Peller	50				
Launch	Stirling Marine Services Pty Ltd				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
Line	Stirling Marine Services Pty Ltd				Swan River Steamship Co	50	Adsteam Marine	100
					Adsteam Marine Limited	50		
BROOME								
Launch	Broome Port Authority				Broome Port Authority			
Line	Broome Port Authority				Broome Port Authority			
COCKATOO ISLAND								
Tug	StIrling Marine Services Pty Ltd	Stirling Skate	Twin Screw Fixed Nozzle	15	Swan River Steamship Co	50	Adsteam Marine	100
					Adelaide Steamship Industries	50		
Launch	StIrling Marine Services Pty Ltd				Swan River Steamship Co	50	Adsteam Marine	100
					Adelaide Steamship Industries	50		
Line	StIrling Marine Services Pty Ltd				Swan River Steamship Co	50	Adsteam Marine	100
					Adelaide Steamship Industries	50		
WYNDHAM								
Launch	Ord River District Co-operative				Ord River District Co-operative	100		
Line	Ord River District Co-operative				Ord River District Co-operative	100		
DARWIN								
Tug	Coastal Tug & Barge Pty Ltd	Mataranka	Twin Screw Steerable Nozzle	21	Adelaide Steamship Industries	50		
		Capel	Twin Screw	43	Stannard Brothers	50		
Launch	Darwin Tug & Line Services				Francis Bay Marine		Les Bariates	
Line	Darwin Tug & Line Services				Francis Bay Marine		Les Bariates	

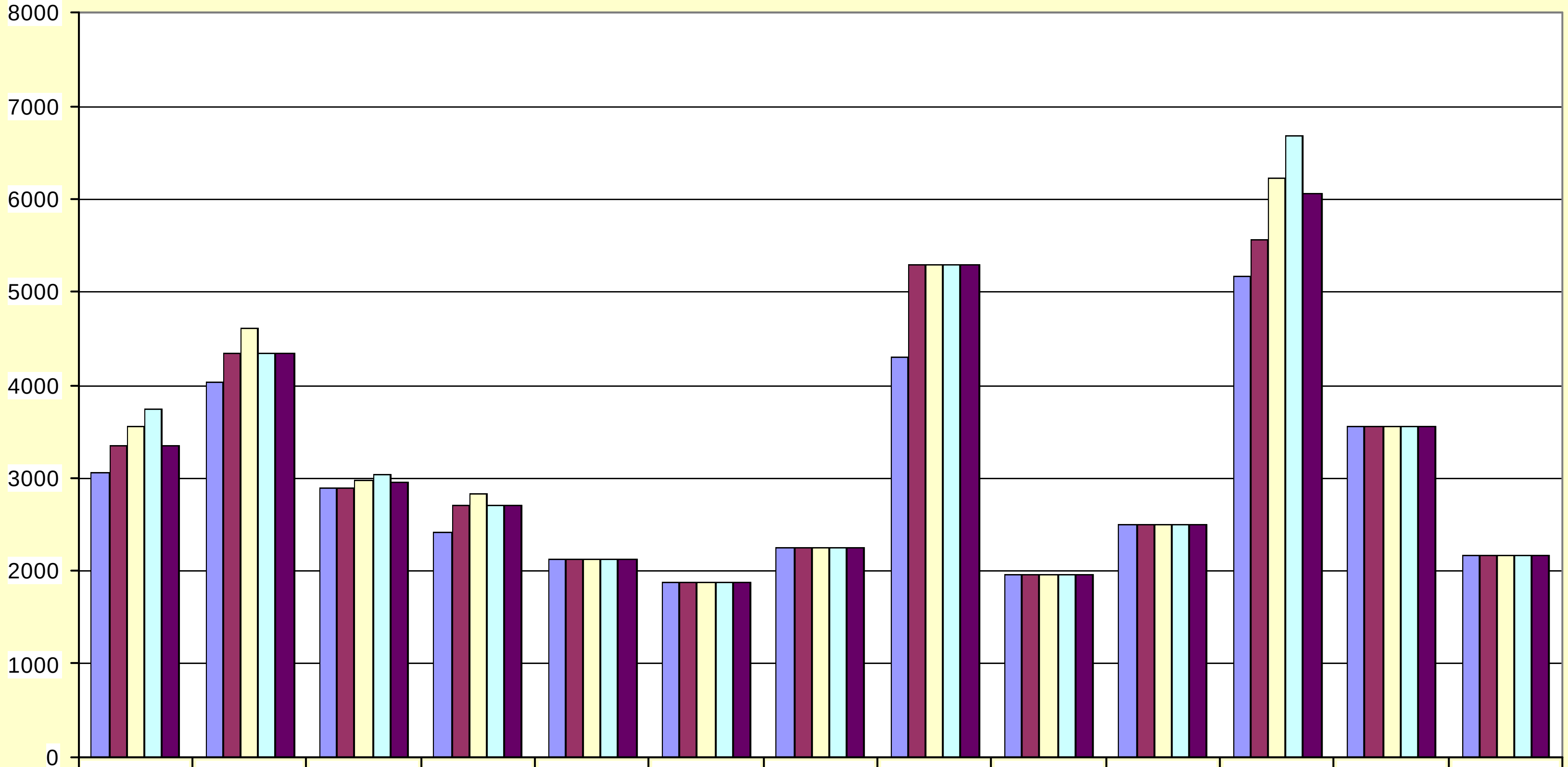
TOWAGE COST HISTORY

ANALYSIS OF AVERAGE INVOICED COST
CONTAINER VESSELS – ALL LINES

GRT range	2001 cost	new cost	% increase
BRISBANE			
15,001 to 20,000	8,115	9,064	11.7
20,001 to 30,000	7,390	8,255	11.7
30,001 to 40,000	9,168	10,241	11.7
40,001 to 50,000	9,517	10,630	11.7
PORT BOTANY			
15,000 to 29,999	7,164	8,102	13.1
30,000 to 39,999	9,258	10,471	13.1
40,000 to 49,999	11,269	12,745	13.1
50,000 to 59,999	11,838	13,389	13.1
MELBOURNE			
17,501 to 20,000	4,100	5,059	23.4
20,001 to 30,000	6,332	7,814	23.4
30,001 to 40,000	6,990	8,626	23.4
40,001 to 50,000	7,801	9,626	23.4
ADELAIDE			
20,000 to 24,999	3,866	4,477	15.8
25,000 to 29,999	10,140	11,742	15.8
30,000 to 34,999	11,167	12,931	15.8
35,000 to 39,999	14,332	16,585	15.8

The data for this table was provided by Adsteam Marine Limited

TUG RATE COMPARISON - AUD's



	BNE	FAE	MEB	SYD	AKL	Long Beach	New York	Savanna	Baltimore	S'hmpton	Hamburg	Got'burg	Yo'hama
GRT 39535	3056	4040	2887	2423	2116	1880	2254	4309	1968	2490	5161	3564	2170
GRT 49326	3359	4340	2887	2701	2116	1880	2254	5288	1968	2490	5567	3564	2170
GRT 54826	3555	4620	2973	2832	2116	1880	2254	5288	1968	2490	6225	3564	2170
GRT 67140	3751	4340	3027	2701	2116	1880	2254	5288	1968	2490	6676	3564	2170
PCTC:GRT 49792	3359	4340	2959	2701	2116	1880	2254	5288	1968	2490	6054	3564	2170

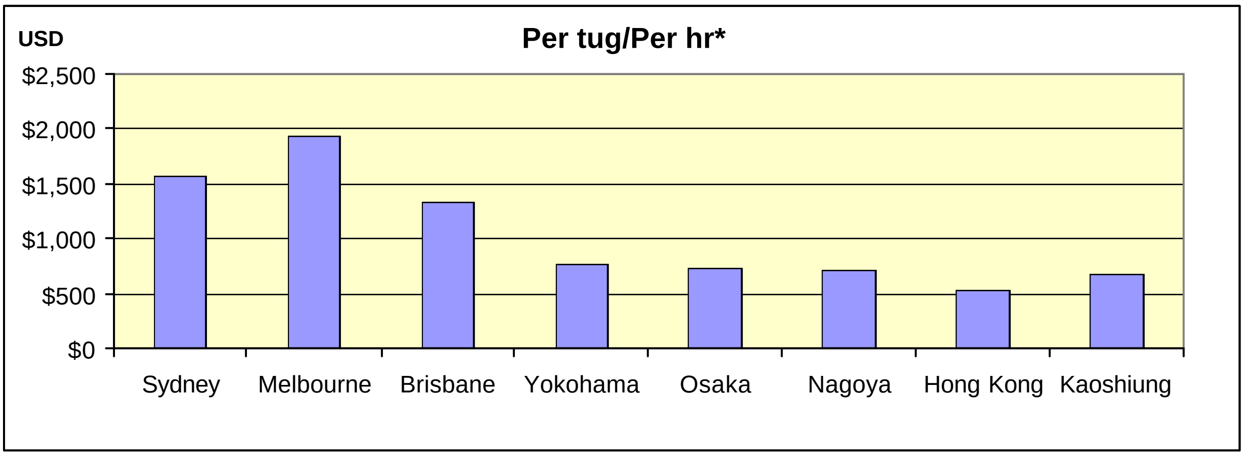
TOWAGE COST COMPARISON (Based on actual vessel in service)

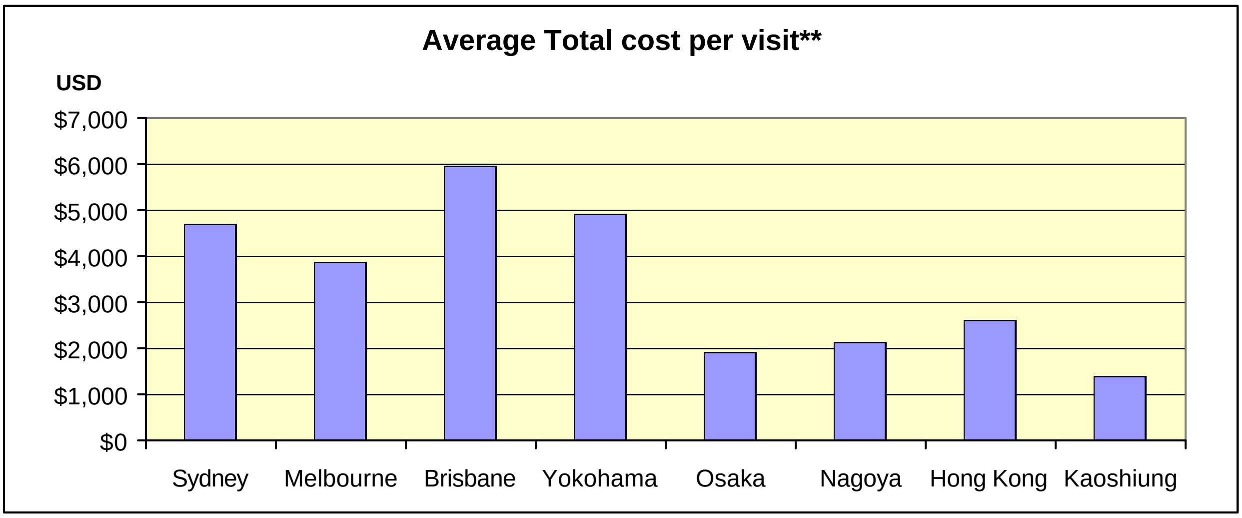
All costs are in USD, exchange rates calculated as at 26/03/02

	Sydney	Melbourne	Brisbane	Yokohama	Osaka	Nagoya	Hong Kong	Kaoshiung
Per tug/Per hr*	$1,565.97	$1,932.95	$1,323.68	$764.10	$738.46	$718.29	$526.33	$669.09
Average Total per visit**	$4,697.91	$3,865.90	$5,955.43	$4,891.72	$1,920.22	$2,154.92	$2,614.34	$1,401.55
Avg No Tugs	3	2	3	2	4	2	4	2

* Where there is a set cost for tug hire not dependant on hours, cost has been divided by average hours employed to give per hour rate

** Including any additional tugs, extra hours and out-of-standard-hours surcharges





COST CHANGES OVER PAST 5 YEARS

SYD	13.1% increase in 2002
MEB	23.4% increase in 2002, 10% increase in 1999
BNE	11.7% increase in 2002
YOK	18% reduction as from 01/08/01
OSA	No change in last 5 years
NGO	No change in last 5 years
HKG	No change in last 5 years
KAO	20% reduction in 1998, standard hours increased

ESTIMATED PORT COSTS
Typical Handysize Bulk Carrier - 30,000 to 40,000 DWT

	TOTAL $	
FREMANTLE		
Pilotage	4205	
Berthage	6474	
Moorers	1210	
Lineboat	759	
Launch Hire	1100	
Towage	11044	Towage 37%
Grain Surveys	2000	
Customs O/Time	200	
Radio Pratique	900	
Airbags	58	
Ships Phone	150	
Gangway Hire	83	
Sundries	1500	
	29683	
PORT ADELAIDE		
Pilot	2350	
Towage	12860	Towage 38.86%
Harbour Services Charge	6776	
Navigation Service Charge	2660	
Light Dues & Oil Pollution Levy	6066	
Refuse Collection	200	
Radio Pratique	680	
Grain Surveys - AMSA	200	
- AQIS	800	
- UNDERWRITER	500	
	33092	
MELBOURNE		
Marine Navigation Levy	6065	
Channel Levy (Tonnage)	5400	
Pilotage	6935	
Towage	9018	Towage 25%
Mooring & Unmooring	1085	
Berthage ("F" Appleton)	3696	
Pratique	680	
Hold Surveys	1500	
Sundries	1000	
	35381	
GEELONG		
Marine Navigation Levy	6065	
Channel Levy (tonnage)	5400	
Pilotage	6935	
Towage	8979	Towage 15%
Mooring & Unmooring	1320	
Berthage (Bulk grain pier)	29400	
Pratique	680	
Hold Surveys	1500	
Sundries	1000	
	61280	
BRISBANE		
Marine Navigation Levy	6065	
Conservatory Dues	2780	
Pilotage	6500	
Towage	10643	Towage 32%
Moor/Unmooring	1300	
Pratique	680	
Grain Surveys	1500	
Wharf Security	2112	
Sundries	1000	
	32580	

M/V 20K Grain - Wheat

Vessel Particulars	GRT	NRT	DWT
	12200	9000	20000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	4,302.00	4,302.00		4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00
Navigation Service Charge	1,947.00	1,947.00		1,947.00	1,947.00	1,947.00	1,947.00			
State Light Dues**			N							
Pilotage	1,820.00	1,760.00	O	1,760.00	1,760.00	1,760.00	1,760.00	1,610.00	5,181.00	3,289.00
Towage	11,336.00	16,000.00	T	7,550.00	16,580.00	11,600.00	9,620.00	11,250.00	7,155.00	4,495.00
Mooring/Unmooring								1,812.00	1,400.00	1,000.00
Line Boat			A						805.00	
Berthage			P						0.00	
Tonnage Rates (Vic)			P					6,013.00	3,185.00	3,184.00
Berth Hire (Vic)			L					6,778.00	15,600.00	2,160.00
Harbour Dues	5,147.00	4,665.00	I	4,665.00	4,665.00	4,665.00	4,665.00			
Phone/Radio Prat.	490.00	490.00	C	490.00	490.00	456.00	490.00	475.00	630.00	
Electricity			A							
Refuse Removal	240.00		B	240.00	240.00	215.00	240.00	455.00	387.00	185.00
Utility Charge			L							
Surveys	2,500.00	2,800.00	E	2,800.00	2,800.00	2,700.00	2,800.00	2,500.00	1,600.00	
Watchmen										2,000.00
Agency/Sundries	3,000.00	3,000.00		3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
GST	2,599.00	3,017.00		2,196.00	3,099.00	2,636.00	2,403.00	3,162.00	4,325.00	1,994.00
Total Port Costs	$33,381.00	$37,981.00	$0.00	$28,950.00	$38,883.00	$33,281.00	$31,227.00	$41,357.00	$47,570.00	$25,609.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00	4,302.00
Navigation Service Charge	4,270.00	4,802.00					6,600.00		10,980.00
State Light Dues**			1,634.00	1,635.00	1,610.00				
Pilotage	1,984.00	1,974.00	4,694.00	2,129.00	2,123.00	2,900.00		3,823.00	
Towage	6,928.00	4,397.00	6,201.00	3,268.00	13,217.00	6,442.00	11,324.00	11,920.00	9,344.00
Mooring/Unmooring	5,165.00	1,496.00	2,450.00	1,200.00	1,520.00	2,180.00		1,100.00	732.00
Line Boat			922.00	400.00			892.00	1,630.00	
Berthage				2,083.00	2,001.00	1,830.00	4,950.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						13,000.00		3,989.00	
Phone/Radio Prat.	490.00	495.00	490.00	650.00	650.00	491.00	491.00	491.00	491.00
Electricity									
Refuse Removal	200.00	300.00	100.00	500.00	360.00	258.00			
Utility Charge	210.00	175.00							
Surveys	2,000.00	2,500.00	3,500.00	2,000.00	3,000.00	2,300.00	2,300.00	2,300.00	2,300.00
Watchmen									
Agency/Sundries	3,000.00	3,000.00	3,500.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00	3,000.00
GST	1,943.00	1,566.00	1,889.00	1,458.00	2,222.00	3,211.00	2,927.00	2,796.00	2,656.00
Total Port Costs	$30,492.00	$25,007.00	$29,682.00	$22,625.00	$34,005.00	$39,914.00	$36,786.00	$35,351.00	$33,805.00

* Payable every three months.
** Valid 30 days and payable at first QLD port only
GST is included in the estimate. However, for overseas principals/operators this will be credited on closure of D/A

Port Abreviations:-			
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	WLL = WALLAROO	PTK = PORT KEMBLA	GTN = GERALDTON
	PPI = PORT PIRIE	NSL = NEWCASTLE	
	PLN = PORT LINCOLN	BNE = BRISBANE	
	THV = THEVENARD	GLD = GLADSTONE	
		MCK = MACKAY	

M/V 30K Grain - Wheat

	GRT	NRT	DWT
Vessel Particulars	17000	12500	30000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	5,713.00	5,713.00		5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00
Navigation Service Charge	2,385.00	2,385.00	N	2,385.00	2,385.00	2,385.00	2,385.00			
State Light Dues**			O							
Pilotage	2,350.00	2,260.00	T	2,260.00	2,260.00	2,260.00	2,260.00	2,090.00	6,130.00	5,443.00
Towage	12,296.00	16,000.00		9,480.00	18,120.00	12,660.00	11,190.00	11,880.00	7,155.00	10,800.00
Mooring/Unmooring			A					1,812.00	1,400.00	1,000.00
Line Boat			P						805.00	
Berthage			P							
Tonnage Rates (Vic)			L					8,379.00	4,437.00	4,437.00
Berth Hire (Vic)			I					9,489.00	23,400.00	3,060.00
Harbour Dues	7,924.00	7,315.00	C	7,315.00	7,315.00	5,621.00	7,315.00			
Phone/Radio Prat.	490.00	490.00	A	490.00	490.00	456.00	490.00	475.00	630.00	
Electricity			B							
Refuse Removal	300.00		L	300.00	300.00	215.00	300.00	455.00	387.00	185.00
Utility Charge			E							
Surveys	2,500.00	2,800.00		2,800.00	2,800.00	2,700.00	2,800.00	2,500.00	1,600.00	2,000.00
Watchmen										
Agency/Sundries	3,200.00	3,200.00		3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00
GST	3,096.00	3,396.00		2,774.00	3,638.00	2,951.00	2,945.00	3,780.00	5,465.00	3,196.00
Total Port Costs	$40,254.00	$43,559.00	$0.00	$36,717.00	$46,221.00	$38,161.00	$38,598.00	$49,773.00	$60,322.00	$39,034.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00	5,713.00
Navigation Service Charge	5,950.00	6,691.00					9,900.00		15,300.00
State Light Dues**			2,278.00	2,278.00	2,244.00				
Pilotage	2,764.00	2,764.00	5,710.00	2,967.00	2,958.00	3,200.00		3,823.00	
Towage	8,764.00	5,286.00	7,257.00	4,902.00	15,349.00	9,377.00	14,430.00	14,480.00	11,502.00
Mooring/Unmooring	5,165.00	1,496.00	2,450.00	1,300.00	1,520.00	2,180.00	0.00	1,100.00	1,020.00
Line Boat			922.00	400.00			892.00	1,630.00	
Berthage				4,385.00	4,896.00	2,550.00	4,950.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						19,500.00		5,559.00	
Phone/Radio Prat.	490.00	495.00	490.00	650.00	650.00	491.00	491.00	491.00	491.00
Electricity									
Refuse Removal	200.00	300.00	100.00	500.00	360.00	258.00			
Utility Charge	210.00	175.00							
Surveys	2,000.00	2,500.00	3,500.00	2,000.00	3,000.00	2,300.00	2,300.00	2,300.00	2,300.00
Watchmen									
Agency/Sundries	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00	3,200.00
GST	2,372.00	1,922.00	2,095.00	1,965.00	2,828.00	4,257.00	3,567.00	3,209.00	3,332.00
Total Port Costs	$36,828.00	$30,542.00	$33,715.00	$30,260.00	$42,718.00	$53,026.00	$45,443.00	$41,505.00	$42,858.00

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ESTIMATED - GRAIN PORT DISBURSEMENT ACCOUNT
AS AT 1 SEPTEMBER 2000

M/V 50K Grain - Wheat

	GRT	NRT	DWT
Vessel Particulars	30300	22000	50000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	9,261.00	9,261.00				9,261.00		9,261.00	9,261.00	9,261.00
Navigation Service Charge	3,602.00	3,602.00				3,602.00				
State Light Dues**			N	T	T		T			
Pilotage	2,860.00	2,760.00	O	O	O	2,760.00	O	3,420.00	7,374.00	6,688.00
Towage	14,876.00	32,000.00	T	O	O	16,780.00	O	12,840.00	10,228.00	11,548.00
Mooring/Unmooring								2,034.00	1,400.00	1,000.00
Line Boat			A	L	L		L		805.00	
Berthage			P	A	A		A			
Tonnage Rates (Vic)			P	R	R		R	14,935.00	7,909.00	7,908.00
Berth Hire (Vic)			L	G	G		G	17,622.00	39,000.00	4,860.00
Harbour Dues	12,090.00	11,287.00	I	E	E	8,270.00	E		12,960.00	
Phone/Radio Prat.	490.00	490.00	C			456.00		475.00	630.00	
Electricity			A							
Refuse Removal	600.00		B			215.00		636.00	387.00	185.00
Utility Charge			L							
Surveys	2,500.00	2,800.00	E			2,800.00		2,500.00	1,600.00	2,000.00
Watchmen										
Agency/Sundries	4,000.00	4,000.00				4,000.00		4,000.00	4,000.00	4,000.00
GST	4,053.00	5,645.00		0.00	0.00	3,889.00	0.00	5,599.00	9,505.00	3,997.00
Total Port Costs	$54,332.00	$71,845.00	$0.00	$0.00	$0.00	$52,033.00	$0.00	$73,322.00	$105,059.00	$51,447.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,261.00	9,261.00	9,261.00	9,261.00	9,261.00	9,261.00	9,261.00	9,261.00	9,261.00
Navigation Service Charge	10,605.00	11,926.00					16,500.00		27,270.00
State Light Dues**			4,060.00	4,060.00	4,000.00				
Pilotage	4,367.00	4,452.00	7,758.00	4,596.00	4,593.00	3,700.00		4,915.00	
Towage	14,868.00	12,152.00	12,224.00	9,356.00	27,500.00	11,813.00	16,930.00	17,040.00	17,252.00
Mooring/Unmooring	5,165.00	3,284.00	2,450.00	1,600.00	1,520.00	2,180.00		1,100.00	1,818.00
Line Boat			922.00	800.00			892.00	1,630.00	
Berthage				9,245.00	12,484.00	6,818.00	7,425.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						32,500.00		9,908.00	
Phone/Radio Prat.	490.00	495.00	490.00	650.00	650.00	491.00	491.00	491.00	491.00
Electricity				500.00					
Refuse Removal	200.00	300.00	100.00		360.00	387.00			
Utility Charge	210.00	175.00							
Surveys	2,500.00	2,500.00	3,500.00	2,000.00	3,000.00	2,300.00	2,300.00	2,300.00	2,300.00
Watchmen									
Agency/Sundries	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00	4,000.00
GST	3,610.00	3,470.00	2,797.00	3,210.00	5,046.00	6,290.00	4,725.00	4,009.00	5,184.00
Total Port Costs	$55,276.00	$52,015.00	$47,562.00	$49,278.00	$72,414.00	$79,740.00	$62,524.00	$54,654.00	$67,576.00

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GLD = GLADSTONE
MCK = MACKAY
ESP = ESPERANCE
ALB = ALBANY
KWN = KWINANA
GTN = GERALDTON

ESTIMATED - GRAIN PORT DISBURSEMENT ACCOUNT
AS AT 1 SEPTEMBER 2000

M/V 55K Grain - Wheat

	GRT	NRT	DWT
Vessel Particulars	33300	23400	55000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *		9,629.00				9,629.00		9,629.00	9,629.00	9,629.00
Navigation Service Charge		3,877.00				3,887.00				
State Light Dues**	T		N	T	T		T			
Pilotage	O	2,760.00	O	O	O	2,760.00	O	3,720.00	7,493.00	6,806.00
Towage	O	32,000.00	T	O	O	16,780.00	O	12,840.00	10,228.00	11,548.00
Mooring/Unmooring								2,034.00	1,400.00	1,000.00
Line Boat	L		A	L	L		L		805.00	
Berthage	A		P	A	A		A			
Tonnage Rates (Vic)	R		P	R	R		R	16,414.00	8,692.00	8,691.00
Berth Hire (Vic)	G		L	G	G		G	18,638.00	42,900.00	5,310.00
Harbour Dues	E	12,185.00	I	E	E	8,868.00	E		16,200.00	
Phone/Radio Prat.		490.00	C			456.00		475.00	630.00	
Electricity			A							
Refuse Removal			B			215.00		636.00	387.00	185.00
Utility Charge			L							
Surveys		2,800.00	E			2,800.00		2,500.00	1,600.00	2,000.00
Watchmen										
Agency/Sundries		4,200.00				4,200.00		4,200.00	4,200.00	4,200.00
GST		5,782.00				3,997.00		5,898.00	10,346.00	4,169.00
Total Port Costs	$0.00	$73,723.00	$0.00	$0.00	$0.00	$53,592.00	$0.00	$76,984.00	$114,510.00	$53,538.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,629.00	9,629.00	9,629.00	9,629.00	9,629.00	9,629.00	9,629.00	9,629.00	9,629.00
Navigation Service Charge	11,655.00	13,107.00					18,150.00		29,970.00
State Light Dues**			4,462.00	4,462.00	4,396.00				
Pilotage	4,538.00	4,615.00	7,872.00	4,918.00	4,917.00	3,700.00		4,915.00	
Towage	22,066.00	12,152.00	12,224.00	9,356.00	27,500.00	11,813.00	16,930.00	17,040.00	17,252.00
Mooring/Unmooring	5,165.00	3,284.00	2,450.00	1,600.00	1,520.00	2,180.00		1,100.00	1,998.00
Line Boat			1,922.00	800.00			892.00	1,630.00	
Berthage				10,160.00	13,720.00	7,493.00	7,425.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						35,750.00		10,889.00	
Phone/Radio Prat.	490.00	495.00	490.00	650.00	650.00	491.00	491.00	491.00	491.00
Electricity						387.00			
Refuse Removal	200.00	300.00	100.00	500.00	360.00	387.00			
Utility Charge	210.00	175.00							
Surveys	2,500.00	2,500.00	3,500.00	2,000.00	3,000.00	2,300.00	2,300.00	2,300.00	2,300.00
Watchmen									
Agency/Sundries	4,200.00	4,200.00	4,200.00	4,200.00	4,200.00	4,200.00	4,200.00	4,200.00	4,200.00
GST	4,452.00	3,613.00	2,809.00	3,353.00	5,222.00	6,721.00	5,853.00	4,107.00	5,472.00
Total Port Costs	$65,105.00	$54,070.00	$49,658.00	$51,628.00	$75,114.00	$85,051.00	$65,870.00	$56,301.00	$71,312.00

* Payable every three months.
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ESTIMATED - GRAIN PORT DISBURSEMENT ACCOUNT
AS AT 1 SEPTEMBER 2000

M/V 70K Grain - Wheat

	GRT	NRT	DWT
Vessel Particulars	36500	23000	70000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *		9,524.00				9,524.00		9,524.00	9,524.00	9,524.00
Navigation Service Charge		4,170.00				4,170.00				
State Light Dues**	T		N	T	T		T			
Pilotage	O	3,260.00	O	O	O	3,260.00	O	4,040.00	7,620.00	6,933.00
Towage	O	48,000.00	T	O	O	16,780.00	O	13,050.00	10,228.00	11,548.00
Mooring/Unmooring								2,034.00	1,400.00	1,000.00
Line Boat									805.00	
Berthage	L		A	L	L		L			
Tonnage Rates (Vic)	A		P	A	A		A	17,991.00	9,527.00	9,525.00
Berth Hire (Vic)	R		P	R	R		R	22,874.00	42,900.00	6,660.00
Harbour Dues	G	16,777.00	L	G	G	9,506.00	G		16,200.00	
Phone/Radio Prat.	E	490.00	I	E	E	456.00	E	475.00	630.00	
Electricity			C							
Refuse Removal			A			215.00		636.00	387.00	185.00
Utility Charge			B							
Surveys		2,800.00	L			2,800.00		2,500.00	1,600.00	2,000.00
Watchmen			E							
Agency/Sundries		4,500.00				4,500.00		4,500.00	4,500.00	4,500.00
GST		7,951.00				4,363.00		6,562.00	10,432.00	4,390.00
Total Port Costs	$0.00	$97,472.00	$0.00	$0.00	$0.00	$55,574.00	$0.00	$84,186.00	$115,753.00	$56,265.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,524.00	9,524.00	9,524.00		9,524.00	9,524.00	9,524.00	9,524.00	9,524.00
Navigation Service Charge	12,775.00	14,366.00					23,100.00		32,850.00
State Light Dues**			4,891.00	T	4,818.00				
Pilotage	4,621.00	4,788.00	7,994.00	O	5,262.00	3,700.00		4,915.00	
Towage	25,120.00	12,831.00	12,224.00	O	40,000.00	13,125.00	16,930.00	17,880.00	20,026.00
Mooring/Unmooring	5,165.00	3,284.00	2,450.00		1,520.00	2,180.00		1,100.00	2,190.00
Line Boat			922.00				892.00	1,630.00	
Berthage				L	15,308.00	10,950.00	9,900.00		
Tonnage Rates (Vic)				A					
Berth Hire (Vic)				R					
Harbour Dues				G		45,500.00		11,936.00	
Phone/Radio Prat.	490.00	495.00	490.00	E	650.00	491.00	491.00	491.00	491.00
Electricity						516.00			
Refuse Removal	200.00	300.00	100.00		360.00	516.00			
Utility Charge	210.00	175.00							
Surveys	2,500.00	2,500.00	3,500.00		3,000.00	2,300.00	2,300.00	2,300.00	2,300.00
Watchmen									
Agency/Sundries	4,500.00	4,500.00	4,500.00		4,500.00	4,500.00	4,500.00	4,500.00	4,500.00
GST	4,876.00	3,961.00	2,821.00		6,695.00	8,199.00	5,632.00	4,296.00	6,057.00
Total Port Costs	$69,981.00	$56,724.00	$49,416.00	$0.00	$91,637.00	$101,501.00	$73,269.00	$58,572.00	$77,938.00

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ESTIMATED - GRAIN PORT DISBURSEMENT ACCOUNT
AS AT 1 SEPTEMBER 2000

VESSEL SIZE / PORT	WHEAT 20,000	WHEAT 30,000	WHEAT 50,000	WHEAT 55,000	WHEAT 70,000
ADELAIDE	$34,575	$41,649	$55,549	TOO LARGE	TOO LARGE
PORT GILES	$37,791	$43,419	$71,655	$73,397	$96,942
ARDROSSAN	N/A	N/A	N/A	N/A	N/A
WALLAROO	$32,709	$40,259	$74,517	$76,257	$69,588
PORT PIRIE	$38,693	$46,081	TOO LARGE	TOO LARGE	TOO LARGE
PORT LINCOLN	$33,118	$38,018	$51,831	$53,254	$54,838
THEVENARD	$31,077	$38,458	TOO LARGE	TOO LARGE	TOO LARGE
PORTLAND	$41,933	$50,880	$75,239	$78,933	$86,315
GEELONG	$49,698	$63,341	$109,894	$119,616	TOO LARGE
MELBOURNE	$27,765	$42,816	$57,679	$60,661	TOO LARGE
PORT KEMBLA	$28,863	$35,365	$52,070	$64,672	$70,071
NEWCASTLE	$24,908	$30,164	$51,154	$53,068	$55,482
BRISBANE	$30,636	$34,450	$49,042	$49,976	$50,573
GLADSTONE	$24,129	$32,161	$51,824	$54,358	TOO LARGE
MACKAY	$34,204	$44,196	$76,370	$79,412	$82,154
ESPERANCE	$43,380	$58,631	$86,258	$94,058	$109,343
ALBANY	$34,938	$46,466	$60,761	$64,733	$70,804
KWINANA	$31,743	$36,822	$50,120	$51,631	$52,774
GERALDTON	$32,693	$42,008	$66,485	TOO LARGE	TOO LARGE

Refer to individual worksheet for itemised costing.

ESTIMATED - WHEAT PORT DISBURSEMENT ACCOUNT
AS AT 06 MARCH 2002

M/V 20K Grain - Wheat

Vessel Particulars
GRT = 12200
NRT = 9000
DWT = 20000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	4,252.00	4,252.00		4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00
Navigation Service Charge	1,947.00	1,947.00		1,947.00	1,947.00	1,947.00	1,947.00			
State Light Dues**			N							
Pilotage	1,820.00	1,760.00	O	1,760.00	1,760.00	1,760.00	1,760.00	1,610.00	5,412.00	4,698.00
Towage	12,752.00	16,000.00	T	10,780.00	16,580.00	11,600.00	9,620.00	11,250.00	8,100.00	5,309.00
Mooring/Unmooring								1,812.00	1,200.00	1,000.00
Line Boat			A						957.00	
Berthage			P							
Tonnage Rates (Vic)			P					6,373.00	3,294.00	3,294.00
Berth Hire (Vic)			L					7,184.00	16,800.00	2,200.00
Harbour Dues	5,147.00	4,665.00	I	4,665.00	4,665.00	4,665.00	4,665.00			
Phone/Radio Prat.	830.00	830.00	C	830.00	830.00	830.00	830.00	680.00	680.00	680.00
Electricity			A							
Refuse Removal	240.00		B	600.00	240.00	215.00	240.00	455.00	603.00	185.00
Utility Charge			L							
Surveys	2,500.00	2,800.00	E	2,800.00	2,800.00	2,700.00	2,800.00	2,500.00	1,300.00	2,000.00
Watchmen										
Agency/Sundries	2,600.00	2,600.00		2,600.00	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00
GST	2,487.00	2,937.00		2,475.00	3,019.00	2,549.00	2,363.00	3,217.00	4,500.00	2,196.00
Total Port Costs	$34,575.00	$37,791.00	N/A	$32,709.00	$38,693.00	$33,118.00	$31,077.00	$41,933.00	$49,698.00	$27,765.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00	4,252.00
Navigation Service Charge	4,222.00	4,782.00							
State Light Dues**			1,695.00	1,696.00	1,695.00				
Pilotage	1,961.00	1,984.00	4,836.00	2,129.00	2,490.00	3,200.00		4,905.00	
Towage	6,940.00	4,573.00	6,924.00	3,006.00	13,162.00	8,741.00	12,400.00	8,420.00	9,344.00
Mooring/Unmooring	4,027.00	1,496.00	2,450.00	1,414.00	1,300.00	1,860.00	1,500.00	1,100.00	732.00
Line Boat	464.00		1,530.00	400.00	92.00		452.00	1,630.00	
Berthage				3,234.00	2,575.00	915.00	2,475.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						15,000.00	6,270.00	3,989.00	10,980.00
Phone/Radio Prat.	680.00	680.00	810.00	680.00	680.00	680.00	680.00	680.00	680.00
Electricity									
Refuse Removal	200.00	300.00	150.00	500.00	360.00	258.00			
Utility Charge	210.00	175.00							
Surveys	1,200.00	2,500.00	2,000.00	2,500.00	3,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Watchmen									
Agency/Sundries	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00	2,600.00	2,004.00	2,600.00
GST	2,107.00	1,566.00	3,389.00	1,718.00	1,998.00	3,874.00	2,309.00	2,763.00	2,105.00
Total Port Costs	$28,863.00	$24,908.00	$30,636.00	$24,129.00	$34,204.00	$43,380.00	$34,938.00	$31,743.00	$32,693.00

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	MCK = MACKAY	

M/V 30K Grain - Wheat

Vessel Particulars
GRT = 17200
NRT = 12500
DWT = 30000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	5,663.00	5,663.00		5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00
Navigation Service Charge	2,385.00	2,385.00	N	2,385.00	2,385.00	2,385.00	2,385.00			
State Light Dues**			O							
Pilotage	2,350.00	2,260.00	T	2,260.00	2,260.00	2,260.00	2,260.00	2,090.00	6,444.00	5,730.00
Towage	13,836.00	16,000.00		12,800.00	18,120.00	12,660.00	11,190.00	11,880.00	8,100.00	13,327.00
Mooring/Unmooring			A					1,812.00	1,200.00	1,000.00
Line Boat			P						957.00	
Berthage			P							
Tonnage Rates (Vic)			L					8,995.00	4,644.00	4,644.00
Berth Hire (Vic)			I					10,057.00	25,200.00	3,360.00
Harbour Dues	7,924.00	7,315.00	C	7,315.00	7,315.00	5,621.00	7,315.00			
Phone/Radio Prat.	830.00	830.00	A	830.00	830.00	830.00	830.00	680.00	680.00	680.00
Electricity			B							
Refuse Removal	300.00		L	300.00	300.00	215.00	300.00	455.00	603.00	185.00
Utility Charge			E							
Surveys	2,500.00	2,800.00		2,800.00	2,800.00	2,700.00	2,800.00	2,500.00	1,300.00	2,000.00
Watchmen										
Agency/Sundries	2,850.00	2,850.00		2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
GST	3,011.00	3,316.00		3,056.00	3,558.00	2,834.00	2,865.00	3,898.00	5,700.00	3,377.00
Total Port Costs	$41,649.00	$43,419.00	N/A	$40,259.00	$46,081.00	$38,018.00	$38,458.00	$50,880.00	$63,341.00	$42,816.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00	5,663.00
Navigation Service Charge	5,952.00	6,742.00							
State Light Dues**			2,390.00	2,391.00	2,390.00				
Pilotage	2,765.00	2,797.00	5,926.00	2,967.00	3,510.00	3,200.00		4,905.00	
Towage	8,784.00	5,039.00	8,106.00	6,012.00	15,285.00	12,986.00	15,760.00	10,040.00	11,502.00
Mooring/Unmooring	4,027.00	1,496.00	2,450.00	1,414.00	1,300.00	1,860.00	1,500.00	1,100.00	1,032.00
Line Boat	464.00		1,530.00	400.00	92.00		452.00	1,630.00	
Berthage				4,559.00	6,382.00	2,580.00	4,950.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						22,500.00	9,405.00	5,624.00	15,480.00
Phone/Radio Prat.	680.00	680.00	810.00	670.00	680.00	680.00	680.00	680.00	680.00
Electricity									
Refuse Removal	200.00	300.00	150.00	500.00	360.00	258.00			
Utility Charge	210.00	175.00							
Surveys	1,200.00	2,500.00	2,000.00	2,500.00	3,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Watchmen									
Agency/Sundries	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00	2,850.00
GST	2,570.00	1,922.00	2,575.00	2,235.00	2,684.00	4,054.00	3,206.00	2,330.00	2,801.00
Total Port Costs	$35,365.00	$30,164.00	$34,450.00	$32,161.00	$44,196.00	$58,631.00	$46,466.00	$36,822.00	$42,008.00

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ESTIMATED - WHEAT PORT DISBURSEMENT ACCOUNT
AS AT 06 MARCH 2002

M/V 50K Grain - Wheat

Vessel Particulars
GRT = 30300
NRT = 22000
DWT = 50000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *	9,231.00	9,231.00		9,231.00		9,231.00		9,231.00	9,231.00	9,231.00
Navigation Service Charge	3,602.00	3,602.00		3,602.00		3,602.00				
State Light Dues**			N		T		T			
Pilotage	2,860.00	2,760.00	O	2,760.00	O	2,760.00	O	3,420.00	7,702.00	7,148.00
Towage	16,736.00	32,000.00	T	34,000.00	O	16,780.00	O	12,840.00	11,580.00	14,250.00
Mooring/Unmooring								2,034.00	1,200.00	1,000.00
Line Boat			A		L		L		957.00	
Berthage			P		A		A			
Tonnage Rates (Vic)			P		R		R	15,827.00	8,181.00	8,181.00
Berth Hire (Vic)			L		G		G	18,677.00	42,000.00	7,000.00
Harbour Dues	12,090.00	11,287.00	I	11,289.00	E	8,270.00	E		12,960.00	
Phone/Radio Prat.	830.00	830.00	C	830.00		830.00		680.00	680.00	680.00
Electricity			A							
Refuse Removal	200.00		B	600.00		215.00		636.00	603.00	185.00
Utility Charge			L							
Surveys	2,500.00	2,800.00	E	2,800.00		2,800.00		2,500.00	1,300.00	2,000.00
Watchmen										
Agency/Sundries	3,600.00	3,600.00		3,600.00		3,600.00		3,600.00	3,600.00	3,600.00
GST	3,900.00	5,545.00		5,805.00	0.00	3,743.00	0.00	5,794.00	9,900.00	4,404.00
Total Port Costs	$55,549.00	$71,655.00	N/A	$74,517.00	TOO LARGE	$51,831.00	TOO LARGE	$75,239.00	$109,894.00	$57,679.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,231.00	9,231.00	9,231.00	9,231.00	9,231.00	9,231.00	9,231.00	9,231.00	9,231.00
Navigation Service Charge	10,485.00	11,878.00							
State Light Dues**			4,211.00	4,212.00	4,211.00				
Pilotage	4,316.00	4,452.00	7,987.00	4,596.00	5,370.00	3,700.00		4,905.00	
Towage	15,340.00	11,584.00	13,652.00	8,560.00	27,386.00	16,359.00	18,560.00	13,920.00	17,252.00
Mooring/Unmooring	4,027.00	3,284.00	2,450.00	1,414.00	1,300.00	1,860.00	1,500.00	1,100.00	1,818.00
Line Boat	464.00		1,530.00	800.00	92.00		452.00	1,630.00	
Berthage				12,213.00	16,090.00	4,545.00	4,950.00		
Tonnage Rates (Vic)									
Berth Hire (Vic)									
Harbour Dues						37,500.00	15,675.00	9,908.00	27,270.00
Phone/Radio Prat.	680.00	680.00	810.00	670.00	680.00	680.00	680.00	680.00	680.00
Electricity				500.00					
Refuse Removal	200.00	300.00	150.00		360.00	387.00			
Utility Charge	210.00	175.00							
Surveys	1500,00	2,500.00	2,000.00	2,500.00	3,000.00	2,000.00	2,000.00	2,000.00	2,000.00
Watchmen									
Agency/Sundries	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00	3,600.00
GST	3,517.00	3,470.00	3,421.00	3,528.00	5,050.00	6,396.00	4,113.00	3,146.00	4,634.00
Total Port Costs	$52,070.00	$51,154.00	$49,042.00	$51,824.00	$76,370.00	$86,258.00	$60,761.00	$50,120.00	$66,485.00

* Payable every three months.
** Valid 30 days and payable at first QLD port only
GST is included in the estimate. However, for overseas principals/operators this will be credited on closure of D/A

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ESTIMATED - WHEAT PORT DISBURSEMENT ACCOUNT
AS AT 06 MARCH 2002

M/V 55K Grain - Wheat

Vessel Particulars
GRT = 33300
NRT = 23400
DWT = 55000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *		9,613.00		9,613.00		9,613.00		9,613.00	9,613.00	9,613.00
Navigation Service Charge		3,877.00		3,877.00		3,887.00				
State Light Dues**	T		N		T		T			
Pilotage	O	2,760.00	O	2,760.00	O	2,760.00	O	3,720.00	7,842.00	7,272.00
Towage	O	32,000.00	T	34,000.00	O	16,780.00	O	12,840.00	11,580.00	14,250.00
Mooring/Unmooring								2,034.00	1,200.00	1,000.00
Line Boat	L		A		L		L		957.00	
Berthage	A		P		A		A			
Tonnage Rates (Vic)	R		P		R		R	17,396.00	8,991.00	8,691.00
Berth Hire (Vic)	G		L		G		G	19,755.00	46,200.00	8,680.00
Harbour Dues	E	12,185.00	I	12,185.00	E	8,868.00	E		16,200.00	
Phone/Radio Prat.		830.00	C	830.00		830.00		680.00	680.00	680.00
Electricity			A							
Refuse Removal			B	600.00		215.00		636.00	603.00	185.00
Utility Charge			L							
Surveys		2,800.00	E	2,800.00		2,800.00		2,500.00	1,300.00	2,000.00
Watchmen										
Agency/Sundries		3,650.00		3,650.00		3,650.00		3,650.00	3,650.00	3,650.00
GST		5,682.00		5,942.00		3,851.00		6,109.00	10,800.00	4,640.00
Total Port Costs	TOO LARGE	$73,397.00	N/A	$76,257.00	TOO LARGE	$53,254.00	TOO LARGE	$78,933.00	$119,616.00	$60,661.00

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,613.00	9,613.00	9,613.00	9,613.00	9,613.00	9,613.00	9,613.00	9,613.00	
Navigation Service Charge	11,524.00	13,054.00							
State Light Dues**			4,628.00	4,629.00	4,628.00				T
Pilotage	4,483.00	4,615.00	8,100.00	4,918.00	5,748.00	3,700.00		4,905.00	O
Towage	23,010.00	11,584.00	13,652.00	8,560.00	27,386.00	16,359.00	18,560.00	13,920.00	O
Mooring/Unmooring	4,027.00	3,284.00	2,450.00	1,414.00	1,300.00	1,860.00	1,500.00	1,100.00	
Line Boat	464.00		1,530.00	800.00	92.00		452.00	1,630.00	L
Berthage				13,423.00	17,683.00	7,493.00	6,600.00		A
Tonnage Rates (Vic)									R
Berth Hire (Vic)									G
Harbour Dues						41,250.00	17,243.00	10,889.00	E
Phone/Radio Prat.	680.00	680.00	810.00	670.00	680.00	680.00	680.00	680.00	
Electricity									
Refuse Removal	200.00	300.00	150.00	500.00	360.00	387.00			
Utility Charge	210.00	175.00							
Surveys	2,000.00	2,500.00	2,000.00	2,500.00	3,000.00	2,000.00	2,000.00	2,000.00	
Watchmen									
Agency/Sundries	3,650.00	3,650.00	3,650.00	3,650.00	3,650.00	3,650.00	3,650.00	3,650.00	
GST	4,811.00	3,613.00	3,393.00	3,681.00	5,272.00	7,066.00	4,435.00	3,244.00	
Total Port Costs	$64,672.00	$53,068.00	$49,976.00	$54,358.00	$79,412.00	$94,058.00	$64,733.00	$51,631.00	TOO LARGE

* Payable every three months.
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ESTIMATED - WHEAT PORT DISBURSEMENT ACCOUNT
AS AT 06 MARCH 2002

M/V 70K Grain - Wheat

Vessel Particulars
GRT = 36500
NRT = 23000
DWT = 70000

PORT / SERVICE ITEM	ADL	PTG	ARD	WLL	PPI	PLN	THV	PTL	GEL	MEB
Marine Nav. Levy/Oil Pollution Levy *		9,504.00		9504.00		9,504.00		9,504.00		
Navigation Service Charge		4,170.00		4170.00		4,170.00				
State Light Dues**	T		N		T		T		T	T
Pilotage	O	3,260.00	O	3,260.00	O	3,260.00	O	4,040.00	O	O
Towage	O	48,000.00	T	38,600.00	O	16,780.00	O	13,050.00	O	O
Mooring/Unmooring								2,034.00		
Line Boat										
Berthage	L		A		L		L		L	L
Tonnage Rates (Vic)	A		P		A		A	19,068.00	A	A
Berth Hire (Vic)	R		P		R		R	24,245.00	R	R
Harbour Dues	G	16,777.00	L	13,141.00	G	9,506.00	G		G	G
Phone/Radio Prat.	E	830.00	I	830.00	E	830.00	E	680.00	E	E
Electricity			C							
Refuse Removal			A	600.00		215.00		636.00		
Utility Charge			B							
Surveys		2,800.00	L	2,800.00		2,800.00		2,500.00		
Watchmen			E							
Agency/Sundries		3,750.00		3,750.00		3,750.00		3,750.00		
GST		7,851.00		6,607.00		4,023.00		6,808.00		
Total Port Costs	TOO LARGE	$96,942.00	N/A	$69,588.00	TOO LARGE	$54,838.00	TOO LARGE	$86,315.00	TOO LARGE	TOO LARGE

PORT / SERVICE ITEM	PTK	NSL	BNE	GLD	MCK	ESP	ALB	KWN	GTN
Marine Nav. Levy/Oil Pollution Levy *	9,504.00	9,504.00	9,504.00		9,504.00	9,504.00	9,504.00	9,504.00	
Navigation Service Charge	12,631.00	14,308.00							
State Light Dues**			5,073.00	T	5,073.00				
Pilotage	4,666.00	4,788.00	8,222.00	O	6,152.00	3,700.00		4,905.00	T
Towage	26,172.00	12,232.00	13,652.00	O	27,386.00	18,176.00	18,560.00	13,920.00	O
Mooring/Unmooring	4,027.00	3,284.00	2,450.00		1,300.00	1,860.00	1,500.00	1,100.00	O
Line Boat	464.00		1,530.00		92.00		452.00	1,630.00	
Berthage				L	19,382.00	8,213.00	7,425.00		L
Tonnage Rates (Vic)				A					A
Berth Hire (Vic)				R					R
Harbour Dues				G		52,500.00	21,945.00	11,936.00	G
Phone/Radio Prat.	680.00	680.00	810.00	E	680.00	680.00	680.00	680.00	E
Electricity									
Refuse Removal	200.00	300.00	150.00		360.00	516.00			
Utility Charge	210.00	175.00							
Surveys	2,500.00	2,500.00	2,000.00		3,000.00	2,000.00	2,000.00	2,000.00	
Watchmen									
Agency/Sundries	3,750.00	3,750.00	3,750.00		3,750.00	3,750.00	3,750.00	3,750.00	
GST	5,267.00	3,961.00	3,432.00		5,475.00	8,444.00	4,988.00	3,349.00	
Total Port Costs	$70,071.00	$55,482.00	$50,573.00	TOO LARGE	$82,154.00	$109,343.00	$70,804.00	$52,774.00	TOO LARGE

* Payable every three months.
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EXAMPLES OF RECENT VARIATIONS IN TUG PRICES IN PORTS NOT DECLARED UNDER THE PRICES SURVEILLANCE ACT

Port/State	Date of Variation	Percentage Variation
Western Australia		
Albany	01/12/01	+8.77%
Geraldton	01/10/01	+9.45%
Queensland		
Cairns	01/07/00	+10.00%
Cairns	01/10/00	-1.00%
Mourilyan	01/01/00	+10.00%
Mourilyan	01/10/00	-2.00%
Weipa	01/02/02	+23.50%
Victoria		
Portland	since 1998	no change
Westernport	15/04/02	+14.75%
South Australia		
Port Bonython	01/10/00	-1.132%
Port Lincoln	22/11/01	+2.44%
Port Pirie	12/06/00	+16.466%
Port Pirie	01/10/00	-0.579%
Thevenand	22/11/01	+4.134%
Wallaroo	15/01/01	+35.0%
Whyalla	01/10/00	-2.124%
Tasmania		
average over all ports	over last 5 years	+11.1%

It is presumed that the reductions above are as a result of adjustments due to the diesel fuel rebate.

Canadian designed tug makes Australian debut

EVELYN DUFFY IN AUSTRALIA

An innovative Canadian designed harbour tug, which is said to offer higher manoeuvrability, stability and bollard pull than conventional designs, is making an Australian debut at the south west coast bulk commodity port of Esperance.

The brain child of Canadian based naval architect, Al McIlwain, the 21.7m long, 10.6m beam z-drive (azimuthing) 3,700kW tug gives a bollard pull of 60t at 1,700 rev/min - or 63t at 1,800 rev/min.

Z-drive training master Ken Schmidt, president of the Vancouver based Z2000 Training Services Limited, said the tug's unique oval shaped hull and absence of a centre skeg offer enhanced manoeuvrability to enable it to move both sideways and backwards.

Schmidt, who was in Australia to provide driver training, said stability for the vessel was "fantastic".

"Down flooding doesn't start till 45 deg, so I don't get my deck wet.

"In trials I have worked the tug at 10 knots and higher at 90 deg to the ships hull and have side-stepped at 7.8 knots," Schmidt said.

Built at Structural Marine on Australia's most concentrated ship-building strip at Henderson, the tug is just one of two in service in the world. The other is operating in Vancouver Harbour for Tiger Tugz. A further vessel is undergoing construction in New Zealand.

Structural Marine managing director Barry Saunier said the harbour tug, which sold for around A$5.5 million ($2.83 million), was some A$2 million cheaper per bollard pull than conventional ocean going salvage tugs.

"They are not permitted to go beyond the 30 mile limits offshore and while they have the same engines as other tugs they are a lot simpler in that they don't have the same back up systems for sewerage, desalination and oil treatment," Saunier said.

Saunier said he was sourcing inquiries for the vessel from throughout Australia. The tug was in service for McKenzies Tugs at the port of Esperance, which is due to welcome its first Capesize vessel in February 2002.

'Cape Pasley' By MIKE BROWN

Esperance's MacKenzie brothers, owners of MacKenzie's Tug Services, are no strangers to innovation in tugs. They were certainly trendsetting 16 years ago when they started re-equipping their fleet with aluminium vessels.

Their latest tug is in steel, but that is one of the few conventional things about it. With the Port of Esperance planning an increase in potential vessel sizes from Panamax to around 150,000 tonnes, the MacKenzies were faced with the need to provide a greatly increased bollard pull. With no wish for a concurrent increase in tug size they looked about for unconventional solutions.

They found one in the Tiger Sun class from AG McIlwain of Canada. Under 22 metres overall, with the colossal beam of 10.7 metres, it produces the outstanding bollard pull of 66 tonnes at 110 per cent using a pair of V-16 Deutz 620 engines. Structural Marine of Henderson was selected to build 'Cape Pasley', the most powerful tug for its size in the southern hemisphere.

And probably the most manoeuvrable of any size. Maximum speed ahead of 12.7 knots is respectable; maximum speed sideways of 7.8 knots is unheard of. This is achievable because of the dish-shaped underbody with no skegs and the short length. The same form contributes to a 360 degree spin time of only seven seconds. Call it a sports tug.

Canadian commissioning and training master Ken Schmidt of Z2000 Services, one of the world's most experienced men with azimuthing thrusters, confirms that this is indeed something special. Current azimuthing thruster simulators, he says, are unable to reproduce movements of this magnitude.

Everything happens with the vessel sitting essentially flat, through all evolutions whilst secured to a ship. In a belt and braces refinement, the down-flooding angle is over 45 degrees; Fud MacKenzie is delighted with the operational safety of his tug.

Although the MacKenzies are currently operating with three on board, 'Cape Pasley' was designed for two-man operation. The manning is an extension of the tug's essential simplicity; although results are dramatic, the means of achieving them are straightforward.

Main power from Deutz engines is 1,864kW each, continuous, at 1,800 rpm. This series of Deutz has considerable attractions for this application. Their ability to maintain a constant velocity and temperature of air into the cylinders, particularly at low revs and consequent low boost, controls glazing of the bores. This can be a problem with the amount of time tugs spend idling without load.

On the other hand full continuous power is available at lower revs than other motors considered by the owners, and fuel consumption throughout the range is constant at around 190gm/kW/hr.

The azimuthing thrusters are 1650H Ulstein Aquamaster units from Rolls-Royce. The units are fitted with double steering pumps for increased steering speed and are module mounted ("bolted in" type). The upper gearboxes are fitted with an integral slipping clutch allowing the propeller to turn in the range from zero to idle speed. The hydraulic pressure in the clutch is altered to give the correct slip within the clutch corresponding to the desired propeller rpm. This stepless transformation from clutch-out to clutch-in and reverse provides typical advantages such as better control of the power in the lower end, resulting in a better manoeuvrability at low speed, a reduced wash coming from the propeller at engine idle, and reduced fuel consumption during waiting periods.

When considering designs, MacKenzie Tug Services made a conscious decision to build a dedicated harbour tug. Essentially they wanted the minimum sized vessel which could provide the desired pull, without the excess cost and loss in manoeuvrability an offshore salvage capability would carry with it.

Accommodation is simple, being provided for coastal trips to refit facilities and for overnighting between movements. Simple but well-done. A big mess room, a useful galley, and a four-bunk room. Surfaces are easy-care, but doors, stair treads and trim are in clear-finished timber as an expression of the shipwrights' pride in their trade.

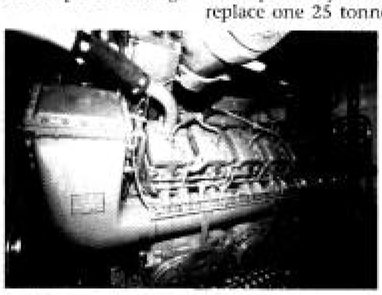
The wheelhouse, an air-conditioned aluminium structure, is resiliently mounted on rubber. It is sited over the soft patch and is readily removable. The rubber is there for vibration insulation as well as isolation from the steel, but the MacKenzies report that that function is redundant: vibration anywhere on board is minimal.

The wheelhouse design was a local creation, featuring extra vision over the Canadian model. In the West Australian tradition the glass, as well as having lower sills, is flush mounted. The absence of window frames gives the triple benefit of easier cleaning, reduction of corrosion opportunities, and greater glazing area.

The master's control position is superb, the suspension seat running on long tracks between the twin control consoles. Vision forward is almost 180 degrees in the vertical plane, and virtually without blind spots around the full horizon.

'Cape Pasley' is a vital addition to Esperance's tug fleet. It will replace one 25 tonne BP tug, and will work in combination with

The master's control position is superb with the vision forward of almost 180 degrees and virtually no blind spots around the full horizon



Twin Deutz TBD620 V-16 deliver 1,864kW each

Rolls-Royce Ulstein Aquamaster 1650H azimuthing thrusters are fitted with double steering pumps for increased steering speed and are module mounted

The southern hemisphere's most effective tug?

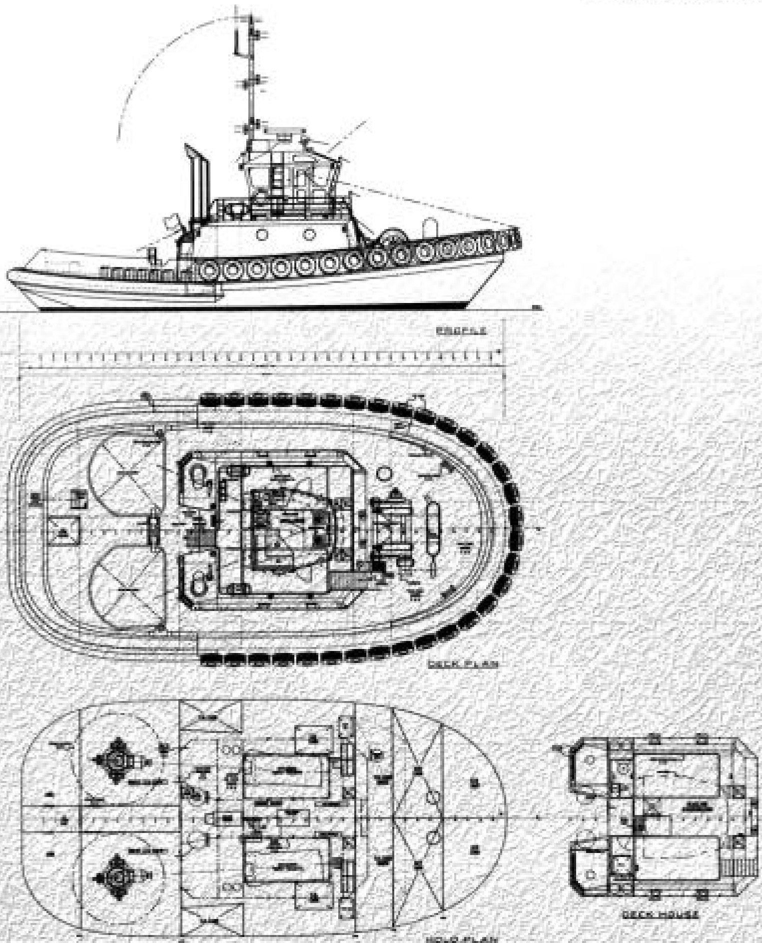
another handling the Cape ships which are due from early 2002. With a draught of 19 metres, the port is well placed to handle the increased iron ore trade from the Koolyanobbing mine. This is planned to double over two years, with the future holding even greater promise.

'Cape Pasley's' builder, Structural Marine, is one of Western Australia's quieter success stories. Whilst the glamour has gone to the high-speed aluminium builders, Structural has spent nearly 20 years developing an extremely capable steel construction yard. Now employing about 50 people, it has the capacity for vessels up to about 45 metres on its 20,000 square metre site. Recently completed vessels include a 35 metre pearling mothership for Broome Pearls, a 22 metre prawn trawler and three 10 metre aluminium line handler/workboats for the offshore oil industry.

AG McIlwain has since 1967 provided design services for all types of commercial vessels ranging from four metre Z-drive log sorting boats to 76 metre barges. The Sun class tug 'Cape Pasley' is one of several high powered tugs with low construction and operating costs that have been built to its design.

A similar tug is now under construction at Shipco in New Zealand for the Port of Otago.

For further information contact: Structural Marine, Lot 11 Cockburn Road, Henderson, WA 6166, Australia.
PH: +61 8 9410 2055, FX: +61 8 9410 1761,
e-mail: barry@structural marine.com.au or
AG McIlwain, 5001 Pinetree Crescent, West Vancouver, BC V7W 3A2, Canada. PH: +1 604 922 8622, FX: +1 604 922 2039,
e-mail: agmac@integrate.bc.ca



'Cape Pasley'

SPECIFICATIONS

Type of vessel:	Harbour tug
In survey to:	USL 2C
Home port:	Esperance
Owner:	MacKenzie's Tug Services
Designer:	AG McIlwain
Builder:	Structural Marine
Length overall:	21.70 metres
Beam:	10.70 metres
Draught:	4.60 metres
Displacement:	270 tonnes lightship
Hull material:	Steel
Superstructure material:	Steel and aluminium
Main engines:	2 x Deutz TBD620 V-16; 1,864kW at 1,800rpm each
Auxiliary engines:	Cummins 4BX and 6BT
Azimuthing thrusters:	2 x Rolls Royce-Ulstein 1650H
Steering system:	Ulstein
Maximum speed:	12.7 knots at 1,800rpm
Cruising speed:	11.2 knots at 1,500rpm
Bollard pull:	61.5 tonnes at 1,700rpm; 66.2 tonnes at 1,800rpm
Hydraulic equipment:	John Honey Hydraulics
Winches:	Structural Marine
Windlass:	Hamilton Engineering
Paints:	Jotun
Windows:	Windows West
Electrical installation:	Construct Electrics
Electronics supply and installation:	Taylor Marine and Maritime Electronics
Radar:	Furuno 36nm Navnet
Sounder:	Furuno Navnet
Autopilot:	Coursemaster
Compass:	Silva
GPS:	Furuno Navnet
Plotter:	Furuno Navnet
Radios:	Barrett HF, 2 x Icom-VHF
Fuel:	40,000 litres
Fresh water:	2,000 litres
Accommodation:	4