TRANSPORT INNOVATION
"THE ROAD TO THE FUTURE'
by Warwick Wilshier

Path to the Present

I was born in the King Country in 1960 where my family were sawmillers and timber merchants so my introduction into the forest industry came in my very early years following my father around stands of Rimu and Tawa whilst he negotiated their purchase and logging costs. In those days King Country Logging Contractors were farmers who farmed in the winter and logged in the summer. Equipment consisted of a large McCulloch chainsaw and a HD11 Crawler tractor. Safety equipment consisted of a black singlet, wool trousers, hobnail boots and the occasional tin helmet. You put your roads in in the summer before and when the weather was fine enough, the trucks would cart the logs to the mills usually one or two at a time. The days of being paid 14 bob to log, 10 bob to cart, summer logging, and 3 bob a jug in the pub were soon to change and with that a whole era in the timber industry gave way to the highly specialised and internationally competitive business that we know today.

My transport career began in 1982 as a 21 year old qualified diesel mechanic fresh out of the forest service. I purchased my first truck, Goods Service Licence and Contract at Waipa Sawmill in Rotorua. Our average cartage rate was $4.50 per tonne for a 45 kilometre cart and we etched out a living carting payloads that are common today using far less axles than today and incurring the odd $30 fine along the way.

In 1984 I formed a partnership with Garry Williams that exists today. We won a contract with the Forest Service carting pulp from Kaingaroa to Kinleith and our business grew from there.

In the days of high inflation, our contracts were adjusted annually on the producer price index which in some years saw movements of 5 - 10%. A new Kenworth in 1980 cost around $100,000 and by 1985, the new one I bought cost $226,000. New michelins were $600, tax rates were 60 cents in the dollar and interest rates peaked at 26%. Through these times we survived a 20% devaluation in the dollar yet developed a strong Balance Sheet and our highest gross profits ever.

Towards the 90's, deregulation took its toll and cartage rates began to slide. The advent of the 44 tonne combination brought some relief, but by 1990 we were struggling. The Asian log boom in the early 90's brought about a huge demand for transport services but fierce competition between fleet operators and owner drivers kept returns in single figures. Forest ownerships changed, re-structured and the traditional contractors' customer changed from several end users to a small number of forest owners that exist today. This changed a friendly handshake environment into a tough, accept the rate or be replaced market that has seen the owner driver fall by the wayside and several fleets merge to form the small number that remain today.

With a dramatic increase in forest yield predicted in the near future, the transport sector is in a state of despair,

and will struggle to react to increased demand if global economies lift and New Zealand takes advantage of markets that will be created. New truck registrations are at an all time low as operators evaluate the current economic environment and the risks that are presented.

Forest owner Balance Sheets have been substantially eroded and this has prompted a drive for cost reduction which has seen contractor confidence reach a new low. This environment has brought a depreciation to contractors Balance Sheets which has never before been experienced and will severely restrict growth in the future. In the past contractors have always been re-active but the new trading environment will require them to be pro-active, more professional and controllers of their own destiny.

To achieve this change I want to cover some areas that our company has been innovative in to ensure our survival in the past and that we are positioned to take advantage of the future.

Payload "The 8 x 4"

With the advent of Road User charges and 44 tonne came the move to more axles and a longer vehicle which has improved stability and increased payload averages. The 8 x 4 truck has given us the ability to achieve maximum payloads when carting short logs or pulp where the load reaches maximum height before maximum weight.

The 8 x 4 truck has enabled the transportation of 2 packets of 8.25 export logs whilst maintaining a 44 tonne legal gross weight. As a convertible combination the 8 x 4 maintains a 44 tonne gross with long logs inside a 19 metre envelope where a 6 x 4 would drop to a 42 tonne G.C.M, thus achieving a 10% increase in payload carting long lengths. Maximum dynamic stability can be achieved using an 8 x 4 and 4 axle trailer combination as the unit spreads its payload evenly between the truck and trailer achieving lower centre of gravity. A longer wheel base can be achieved on the truck which reduces rear overhang and the tendency to oversteer the trailer. A long wheel base trailer increases the options for multiple log lengths to be carried and dramatically increases on-highway stability and performance.

Componentry - The drive for Continuous Improvement"

Air suspension has played a major part in improving the performance of our vehicles and reducing costs. We fitted our first air suspension to a multi bolster trailer in 1994 and to every new trailer since. To date 30% of our trailer fleet has air suspension and the stability improvement has been outstanding along with reduced operating costs.

A trailer fitted with air suspension costs 10-15% more to construct but this cost can be balanced over a 4 year period against the maintenance cost of a conventionally sprung trailer fitted with loadcells with money to spare. Our budgeted weigh system maintenance cost for a unit is $1000 per year and suspension maintenance a similar amount. Our air suspensions have extensive warranties and to date have required minimal maintenance.

Alloy hubs and wheels have a role to play in increasing payload, reducing

tyre wear and reducing maintenance costs. The increased payload is balanced against the increased capital cost but tyre savings and the absence of paint saves time and cost.

Trailer axle design has improved dramatically over recent years as the demand for longer life and a lower centre of gravity places increased pressure on manufacturers. We are currently using a German S.A.F. axle which has a 500,000 km bearing warranty. This axle has sealed bearings which require no maintenance during the warranty period, greasing of brake parts are only required at a reline, and brake shoe replacement takes only a few minutes.

Conventional trailer axles continually require replacement of linings, drums, camshafts and slack adjusters in the logging environment but our experience has shown at least a doubling of component life in the S.A.F. axle.

Central tyre inflation has played a major role in improving the overall economics of log transportation. For the forest owner it has brought a reduction in existing road maintenance costs, reduced road establishment costs and the ability to operate conventional log trucks on steeper grades. For the operator it has produced an improved ride when empty, increased traction and a reduction in tyre costs through reduced impact damage. In our operation C.T.I. has taken the 8 x 4 where
6 x 4 and tri drive vehicles have been the only option. C.T.I. has improved traction so dramatically that in some cases it is impossible for any other vehicle to pass over the same road.

On board computers have a major role to play in reducing operating costs and improving driving standards. The benefits that I see are in accurately monitoring the vehicle utilisation and identifying delays that occur. Driver performance is monitored against preset parameters which encourages continuous improvement. Incident and accident data recorded is invaluable especially given the exposure that the transport industry has. The ability to record second by second data gives the owner the ability to react accurately to complaints, incidents and unfortunate accidents. Engine computers provide limited data but this is often restricted to faults recorded as a result of a mishap.

<u>Self Loaders - Flexibility at a Cost</u>

Over the past 10 years our company has specialised in the operation of self loading units. Today we operate a range of vehicles from a conventional self loading shorts unit to multi-bolster units capable of carting a range of products, bin units for fibre recovery and a self-loading 6 wheel drive off highway vehicle. These vehicles have been invaluable in small woodlot operations and in major forest operations as a method of transferring wood and cleaning up after the harvesting crew has moved. The fibre recovery units collect off cuts from processing operations that would normally be left behind or burned. These units collect the logs without interrupting processing operations and deliver either to railheads or to the chipper. The trucks have printers fitted to the weigh systems and payment is via this method.

The 6 x 6 forwarder has been used in several operations where the cost of

conventional roading would be prohibitive and also in some areas or longer hauls where a trailer has been towed to improve production. It can be easily converted to a full stem unit with the ability to load and unload.

Self loaders are expensive to operate but are often unfairly compared to conventional load and cart operations. In a conventional operation you must consider transportation costs of a loader and its operating costs including wages. In operations where smaller volumes are handled, the self loader can often be the most cost effective solution.

Partnering - The long term relationship with your supplier

Over recent years our company has strived towards reducing its number of suppliers and building a relationship that produces a gain for both parties. Some examples have been -

Tyres

With a diverse range of tyre sizes in our fleet maintaining stocks has always been a costing problem. New Zealand is a small market with many tyre suppliers competing for business whilst having to order stock as far as 6 month ahead. The result was that we were carrying huge stocks and forward ordering to maintain our operation. Time involved in tyre management could be better utilised so it was decided to go to one supplier. A contract was formed that is based on a budgeted cost per kilometre and reporting against that budget is part of the contract. The supplier, using the forecasts, can ensure correct stocks are ordered and purchased at a competitive price. All tyre maintenance is covered under a fixed monthly charge and service is 24 hours per day. Tyres are only charged when fitted and a strong focus has been placed on monitoring the budget and evening out cash flows. By using the expertise of the tyre company we have introduced testing programmes, improved mileages and reduced operating costs.

Engine Manufacturer

Modern engines today require far less maintenance but it is of a more specialised nature requiring the use of laptop computers for fault diagnosis and specialised tooling for routine maintenance. We have developed a relationship with Caterpillar which has placed the responsibility on the supplier to manage and maintain our engines and notify us of impending maintenance and provide reports of fuel use and engine operation.

Insurance

Traditionally truck insurance has been a tendered process where a broker assembles a fleet value and past claims experience and approaches underwriters for quotes on the day for one years business. The underwriter seldom knows the customers business and what events may have influenced the claims experience over previous years.

We have sought to break that barrier down and work together with the broker and underwriter to give the underwriter a better understanding of our business and the changes that we have made that will contribute to lowering our claims. This alliance also involves the assessor and vehicle repairer with the result being an

agreement where the premium bears no relationship to the sum insured, claim costs are constantly monitored, and where possible paid directly to avoid affecting the annual cost. Repairs are carried out in house with only cab and some structural work sent out. This alliance has also brought a new focus on new truck purchases as repair costs fluctuate dramatically. For example, a Foden rolled over will normally require a new cab shell ex England with a normal off road period of 12 weeks. A Kenworth Cab can be dismantled and damaged parts manufactured locally. If a Cab shell is required, they are a maximum of 4 weeks ex Australia, half the cost, and with a resulting 6 weeks maximum off road.

Management - The framework of a strong company

Since our business began in 1984 we have strived to be leaders in the logging industry and to achieve this we set several goals along the way. In the early days it was to have the most versatile equipment that would attract customers. By 1990 it turned to a focus of new goals in Health and Safety and Management Systems, along with a network of operations across New Zealand. To achieve this we formed an alliance with another operator McCarthy Transport and established operations in Northland, Central North Island, East Coast, Lower North Island, Canterbury and Southland. As transport was trending to larger fleet operators, we were well positioned and set about achieving accreditation in the ISO 9002 Quality System and a successful Health and Safety Management System.

The ISO system brought a whole new management structure to our business and without that structure we would not be here today. It forced us to look closely at each persons role in the company and how they interacted.

Today we do all of our own accounting, produce a range of management reports, print our own Road User charges and have complete on line banking facilities. In today's difficult trading conditions, cash flow management is critical and would not be possible without these facilities.

Health and Safety has always been a strong focus in our business and staff welfare has become equally important. Training has played an important role and this year most of our drivers will achieve national certificate level, long before our competitors.

Implementing compulsory health checks has encouraged our drivers to become more aware of their physical well being which has reflected in morale and pride in their work.

Our customers expectations are now as high as our own so it is important to maintain stable, well trained and motivated staff.

The future - A new playing field

As we trade out of the current recession, there are some issues that I believe are most important. Knowing your costs and a strong Balance Sheet. We have survived on cash flows for long enough and I believe that whilst Banks and Financiers are sympathetic as they travel through the forestry minefield and incur loss after loss, the focus will change and they

will again cut their risk and look only to sound viable customers.

With the collapse of the second hand truck market and very real depreciation, we have lost considerable equity in our business and have had to formulate a plan to regain that equity. To achieve this we have had to find a way of reducing our debt, decreasing the age of our fleet and ensuring that our running costs are not excessive given extremely tight to non existent profit margins.

One step we have taken is to lease most of our fleet replacements this year. By trading our old trucks we can reduce our debt. Leasing provided new vehicles and fully maintained lease contracts guaranteed our operating costs. What trucks we do purchase will be premium trucks that we will operate for up to 10 years spreading our actual depreciation and reducing our exposure to a depressed used truck market. If you buy A.D.R. compliant trucks such as Kenworths, you have the opportunity to export them to Australia where the used truck market is more buoyant.

As forest owners look to reduce their costs it is important that contractors know their own. We are currently being asked by more than one forest owner to reduce our rates by 10-20% so it is important to focus on individual costs and target improvement.

The core business of log transport will remain focussed on a specialised low tare dedicated log truck being operated as efficiently as possible whilst meeting customer delivery targets. These units will be supported by multi-modal units such as log decks and log chip liners which will open up backload opportunities but cannot be in the forefront in meeting delivery targets. Real time tracking and data transfer will improve information accuracy, identify lost productivity and assist in dispatch efficiency.

Very soon trucks will grow longer and cart increased payloads which will require huge capital investment to remain competitive.

Operators need to form alliances to improve their purchasing power and share work to enhance utilisation and profit In turn alliances need to be formed with the forest owner to stabilise the contracting industry and to jointly achieve efficiencies. Tendering only produces a rate low enough to win a contract rather that the lowest possible cost.

Forest owners have the ability to provide funding to contractors by using cheaper offshore alternatives.

Transport operators need to be more involved in forestry logistics as transport is a vital link and an area that can be optimised. Dispatchers have a tendency to focus on deliveries rather than truck optimisation.

Environmental issues will force operators to concentrate on fuel efficiency and extended oil change intervals. Exhaust emission laws will phase out a large percentage of the current fleet.

Operators will become more involved in research and development as funding through traditional avenues becomes more constrained. There are several legislative changes pending that transport operators can have a

direct impact on and these opportunities should not be wasted.

In all I see a challenging future in a business that will be forced to grow. With such a small number of contractors remaining, the opportunities to expand and take advantage of economies of scale should bring about a return to a stimulating and profitable industry.