The Heavy Haulage Industry

The Contribution of the Heavy Haulage Transport Industry to New Zealand

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Servicing the Needs of the NZ Economy – The Heavy Haulage Transport Industry

The NZ Economy is following economies world wide that require the delivery of large modular items from one site to another as it is an efficient way of developing and carrying out business.

There is also a major trend towards the use of bigger equipment and plant for construction, earthmoving, harvesting and production. Increasingly the capability to transport such large loads is being developed within NZ transport companies following the demands of clients within many industry sectors for this.

This profile of the Heavy Haulage Sector gives an overview of the capabilities of the sector, using some of the best truck, trailer and specialised transport equipment available to safely move these large items safely and in compliance with the many regulations that control these moves on the nations roads.

A large number of sector's of NZ industry are illustrated here, along with some case studies of heavy haulage loads that have been moved around New Zealand.

The heavy haulage transport sector comprises a variety of expert transport operators as well as general freight, contracting or specialised transport companies that have the capability to transport loads that are overdimension and/or overweight.

As a proportion of the industry, it is estimated that the 135 transport companies that make up the membership of the NZ Heavy Haulage Association make up 75% of the industry. The greatest proportion of the work is carried out by these companies and so the remaining 25% is expected to be spread over a similar number of companies, estimated between 250 and 300 companies in NZ that regularly transport loads that are overdimension and/or overweight.

The heavy haulage transport sector provides service to many parts of the New Zealand economy.

Electricity Sector

The development and maintenance of the electricity generation, transmission and distribution to consumers relies on the heavy haulage sector in many ways. Examples of large loads moved for clients include:

- Transformers
- Wind Farm turbines
- Gas Generation components
- Steam Generation components

Development, Construction & Manufacturing

Roading Infrastructure

The maintenance of the current roading network and the development of new roading infrastructure is reliant on the transport of large equipment and pre-formed components. Common items moved include:

- Earthmoving equipment
- Bridge Beams
- Precast concrete panels

Construction Sector

The development of new commercial and residential sites as well as the constructions of factories, warehouses and residences relies on the ability to transport large equipment as well as pre-formed units.

- Earthmoving equipment / Foundation drilling equipment
- Pre-cast concrete panels / Pre-nailed frames
- Relocation of transportable cranes and tower crane sections

Manufacturing Sector

Many large units are manufactured in NZ and either transported to final site within NZ, or to ports for export to off-shore locations.

- Pressure Vessels
- Silo's

Productive & Forestry

In order to keep up with the booming farming, horticulture and viticulture sectors, the transport of large loads is required to keep these operations efficient

- Pre-formed components for the new and expanding Dairy Factories
- Large Wine Silo's
- Large mobile horticultural processing units

The ability to relocate timber processing units from one forest site to another without delay ensures that this sector can operate efficiently.

- Log Haulers and other Forestry processing equipment

Housing & Education

The recycling of the current housing stock by relocation from one site to another, as well the development of the transportable homes sector produces efficiencies for the NZ housing market.

- Recycling of existing homes onto new sites
- The removal of homes from area of development – such as new roads
- The efficient use of labour through the provision of new transportable houses
- Relocation of community facilities such as halls and churches
- Preservation of historic buildings through relocation

For more affordable housing for New Zealander's the house relocation industry can offer:

- the re-use of existing buildings—such as the recycling of army dwellings (pictured)
- relocation within a site of an existing house for infill housing

The use of transportable classrooms means that new schools can be developed, additional capacity added, and emergency classrooms made available at short notice.

- Transportable classrooms for new school developments
- Classroom relocation from one location to another for changing roll sizes
- Emergency provision in case of arson or other emergency

Boating, Marine & Tourism

The transport of new yachts and vessels from construction sites around NZ for delivery both within the country as well for export requires the ability to transport large units. The relocation of boats from one area of NZ to another is another service provided.

- Delivery of boats for export
- Relocation of boats around NZ / Relocation of America's Cup boats

For the tourism sector, the relocation, delivery and refurbishment of boats and other transport vessels used.

Oil and Gas Exploration

The search and extraction of oil and gas is reliant on the movement of many large items

- Drilling Rigs

Mining & Extraction

The Mining sector relies on large equipment to efficiently extract and deliver product to destinations often far away from site.

- Excavator & Dump Truck delivery and relocation

Emergency Capability

The ability to transport large equipment and other modular items in an emergency means that quick provisions can be made in emergency situations.

- Earthmoving & Recovery equipment
- Emergency Housing
- Specialised Rescue equipment

Canterbury Earthquake

- There was emergency mobilisation of heavy recovery, earthmoving and demolition equipment in response to the Canterbury earthquakes.
- On-going reconstruction efforts require the movement of cranes, specialised plant, and building materials (concrete slabs and beams for example) carried out by the heavy haulage industry
- The re-siting and removal of earthquake damaged dwellings is being carried out by house relocation companies

Case Studies of Servicing New Zealand Industry

Oil & Gas Sector

Load Transported: A mobile rig carrier

Size: Weighing 65 tons at a height of 5.60m and overall length of 26m.

Client: Ensign Energy owns the rig and the rig was working on contract to Shell NZ Ltd.

Location: This rig has been relocated to Kaikohe in the north across to Taupo into the Taranaki region. Options include relocation to Southland

Import-Export Handling

Load Transported: Reach Stacker

Size: 14m long x 3.6m wide x 5.6m high x 70tonne

Client: Port of Auckland

Location: From Port of Tauranga to Port of Auckland.

Building Relocation

Load Transported: Former Tinui Hotel

Size: 2 pieces each 11m wide and weighing 70T each

Client: Private Developer

Location: Tinui to Greytown (73km)

Case Studies of Servicing New Zealand Industry

Pulp & Paper Industry

Load Transported: Pulp Mill Unit

Size: Weight - 62.5t. Size - 9m wide, 6.35 m high

Client: Kawarau Pulp & Paper Mill

Location: Mt Maunganui to Kawarau (ex Sweden)

Transport of Goods for Export Offshore to Oil Industry

Load Transported: Stripper

Client: Shell Oil, Sydney

Location: From Fitzroy Engineering to New Plymouth Port to Sydney

Dairy Sector

Load Transported: Silo's (4 loads)

Size: Height 6.4 m, length 29.8 m, width 6.1 m, weight 48 tonne

Client: Fonterra

Location: Ex manufacturer in Christchurch to Edendale Diary Factory, Invercargill

Analysis of the Loads Moved

In a recent 12 months period (1 January to 31 December 2011) there were 6140 permits issued by the NZ Transport Agency for Category 3 and 4 overdimension loads. These are loads that are generally over 4.5m in width, but may also be one of the following: over 5.0m in height ; over 25m in length; have a front overhang in excess of 7.0m; or have a rear overhand in excess of 7.0m

In this specific year:

- The widest single load was 13.5m
- The highest single load was 17.3m
- The single load with the greatest overall length was 78m (including the trailer)
- The individual load with the overall biggest dimensions was a load in New Plymouth that was 12.56m wide, 17.3m high and 75.5m in overall length.

For loads wider than 4.5m, the following profile can be offered for this 12-month period:

- 3956 individual loads
- The average width is 7.49 metres
- The average height is 4.97 metres
- The average overall length is 23.7m

In terms of the width dimension the following analysis can be done of the total overdimension loads wider than 4.5m:

- Up to 5 metres: 17%
- Between 5 and 6 metres: 13 %
- Between 6 and 7 metres: 10%
- Between 7 and 8 metres: 10%
- Between 8 and 9 metres: 15%
- Between 9 and 10 metres: 16%
- Between 10 and 11 metres: 15%
- Greater than 11 metres: 3%