OVER DIMENSIONAL LOADS THROUGH TRAFALGAR, 1952 - 54

By Noel Erbs and Herb Lucas

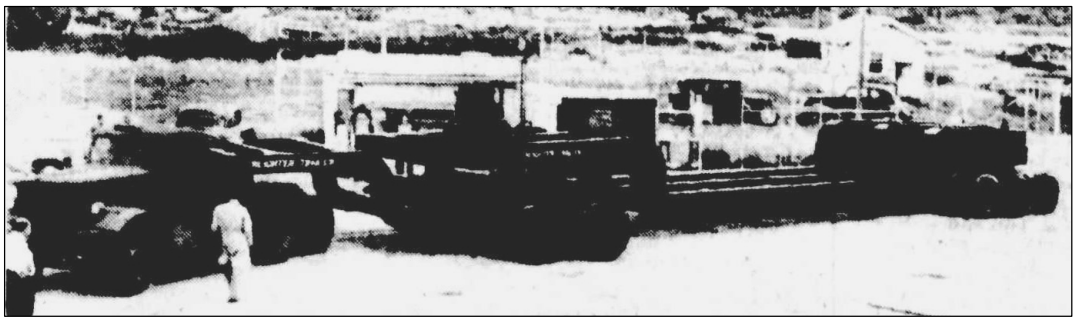
When planning for Yallourn “C” Power Station started in the late 1940s, it was clear that some items, in particular transformers (which cannot be broken into parts) would be too big and heavy to be carried by rail, as was done for the earlier “A” & “B” Stations.

A road transport trial was conducted by the SEC in April 1952. In 1951, the only suitable truck available in Australia was the 1940 American **DIAMOND-T 980**, a WW2 6x4 tank recovery and transport prime mover, capable of handling armoured vehicles of about 30 tons, such as US Grant and Sherman tanks.

Its specifications included: a six-cylinder 200HP Hercules diesel engine, a 4-speed gearbox ahead of a 3-speed range box, a heavy duty winch behind the cab, tare weight 9.5 tons, air brakes, LH drive, no power steering and a top speed of 23 mph (37 km/h). The SEC acquired two of them and contracted Freighters Limited of Moorabbin to build a trailer capable of carrying a transformer weighing up to 80 tons. Since one prime mover had no hope of handling this load, a second one was added as a “pusher”. Even so, the fully loaded combination, at 120ft (37m) long, 18ft (5.5m) wide and a gross weight exceeding 150 tons, was close to an overload for two prime movers so a strict speed limit of 10 mph (16km/h) was imposed.

For comparison, maximums for the B-Double trucks now so common on our highways are: 26 metres long, 2.5 metres wide and 62.5 tonnes (61.5 tons) gross.

Taken at the Freighters factory, the photo below appeared in “The Argus” of 23rd April 1952. The gooseneck from the dolly is attached to the turntable kingpin on the lead prime mover. The front end of the main trailer is carried by a turntable on the 5 x 4 = 20 wheel dolly – the rear end was carried by 5 x 4 = 20 non-steerable wheels. Not shown in this photo is the pusher prime mover.



Naturally, the Country Roads Board (CRB) was worried about how the road surface and bridges along the route would cope. A team of their engineers preceded the trial run (which only carried a relatively small transformer, as seen in pictures below) to assess the road and measure each bridge as the load crossed.

The drivers had a fairly straightforward trip from Port Melbourne out through Dandenong. Their first challenge was driving “bog cog & flat chat” up the main street of Berwick, followed by easing slowly down the long hill into Beaconsfield to avoid overheating the brakes. After negotiating the winding hilly section near present-day “Gumbuya Park”, fingers were crossed while driving VERY slowly across the wooden bridge over the Bunyip River. Following a slow grind up the Picnic Point hill (no climbing lane in those days), locals in Drouin and Warragul came out for a look as the load proceeded along their main streets to the level crossing at Nilma, the approaches to which had been modified to allow the load to cross.

The convoy then passed through Darnum and Yarragon to halt at Trafalgar. The Prince’s Highway there featured a tight “S-bend” with poor forward visibility, as shown largely unchanged by about 1970 in the photo at right.

(Image courtesy T&DHS Archive)

The four photos below are courtesy of Herb Lucas. As Herb, then a young lad who had ridden his bike over from home in Contour Road to join the crowd, recalled: "*These oversize loads would usually arrive at around lunch time and were an attraction for young and old. Usually they stopped short of the bend while all the tyres were checked. Then the transporter moved on at a snail's pace around the bends. It was a real eye-opener for us kids and the crowd along the footpath. It probably took about 10 minutes*".

Herb's photos, reproduced below, show:

1. The trial load halted on the highway opposite the north end of McCrorey St in Trafalgar, waiting for the police escort to clear parked cars from the main street to make room.

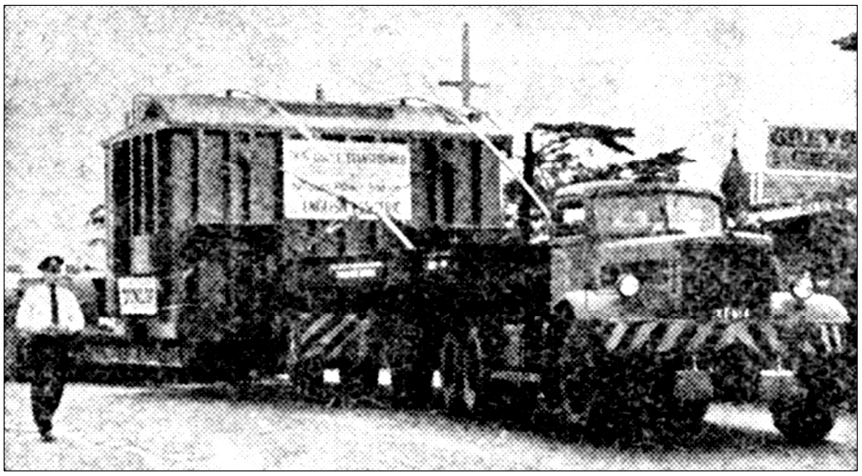
2. The halted pusher prime mover, carrying all the spares as ballast for traction.

3. The lead prime mover is seen on the move, negotiating the second bend, photographed from about in front of the present day ANZ Bank

4. Close-up of a few of the dolly wheels and the trailer and trial load as the load rolled slowly past.

The first full size 78 ton transformer is pictured below leaving Melbourne for Yallourn in January 1954.

From a press release with photograph printed in the "Gippsland News" January 21st,1954, p9.



SELF CONTAINED CONVOY

Successful haulage by the SEC of a huge 78 ton transformer from Melbourne to Yallourn was a further move towards stepping up the supply of electricity to the whole of Victoria. Carried on the heaviest, largest transport ever made in the Southern Hemisphere, the transformer had to travel by road as its size put it well outside the limits of rail transport. The forty wheels on the huge low loader were fitted with standard 11.00 x 20 Dunlop truck tyres. With an overall length of 120 feet, the low loader comprised two semi-trailers and two 200 HP diesel engine motor units, one pulling in front and one pushing at the rear. Telephones were used between these units to synchronise the driving. The low loader moved in convoy, escorted by two police cars, which controlled other traffic along the 90 mile route.

Travelling to a tightly planned schedule, the trip was accomplished without incident, and the transformer is now being fitted to the first of four new 50,000 kilowatt generators designed to provide Victoria's electricity requirements. The huge low loader was the centre of interest at every halt. Bystanders were particularly interested in the number of wheels carrying the heavy load. Corners along the 90 mile route taxed the skill of the drivers of the two power units.

On 10th March 1954, ***"The Argus"*** somewhat belatedly reported on all the preparatory planning and bridge works carried out to ensure that transporting the first 78 ton transformer in January went without a hitch (at right).

A second transformer was moved to Yallourn two months later, as reported in ***"The Argus",*** 22nd May, 1954 (below).

Drivers Beware of the Highway

Motorists were advised yesterday to avoid using the Prince's Highway at the weekend while a 78-ton transformer was being taken from Melbourne to Yallourn.

The transformer will be carried on a low-loader 18ft wide and about 120ft long. Maximum speed of the low-loader will be 10 miles an hour. Police cars will precede and follow the vehicle. A State Electricity Commission spokesman said that drivers in both directions must be prepared to travel in single file for considerable distances.

Police will permit lines of up and down traffic to pass the transformer alternately.

9 bridges safer now

Road haulage of heavy electrical equipment to Yallourn has given the Prince's Highway nine stronger bridges.

The bridges were strengthened to carry loads which culminated recently in Australia's heaviest road lift of 170 tons.

This load consisted of a giant transformer, carried on a semi-trailer with a second diesel powered pusher, the whole convoy rolling on 60 tyres at a speed from one to 10 mph, with radio linking the drivers at each end.

Two police cars and Country Roads Board engineers went along to study the effects on road surfaces and measure bridge deflections.

Cost of the road and bridge work was £25,000 and it took three years of planning and a year's work by a construction gang.

Yallourn "C" station had four of these transformers installed when it was commissioned in 1956. This transporter probably hauled similar loads through Trafalgar to the Morwell Power Station & Briquetting works, which was also commissioned in 1956,

FOOTNOTES.

1. After Centurion tanks were introduced into the Australian army in 1951, the Diamond-T 980 prime movers continued in service but since a Centurion weighed nearly 50 tons, they were right at their limit. In the early 1960's, the ageing Diamond-T's were replaced by more suitable Leyland Scammell Contractor prime movers.
2. Heavy lift and over-dimensional loads travelling east along the Princes Highway became common sights while Yallourn "D" and "E" stations were under construction. Even larger and heavier items were subsequently transported during construction of Hazelwood, Yallourn "W" and, of course, Loy Yang "A" and "B" stations. The job was made easier by the duplication of the highway, with stronger bridges, and the availability of larger trailers with more powerful prime movers.