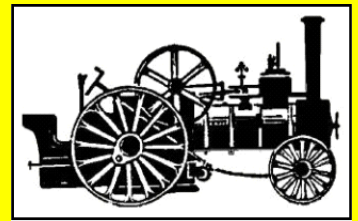


# A Wisp of



Extracts from the Melbourne  
Steam Traction Engine Club's  
Newsletter

## STEAM SUPREME

Washington Steam Logging  
winch in NE Vic bush .  
Brenton Goggerly pic



### Logging Winches



Steam Shovel Sandblasting



Thirlmere Museum



Jumbo Cranes





Brenton pic

Brenton Goggerly writes :- *Over the Christmas period, I was up visiting my dad up in North East Victoria, and he mentioned to me about a old steam winch, up in the bush near Swifts Creek/Ensay. Well knowing this I thought we better go have a look for it, so we set out from Omeo to go find it, after about an hour and a bit of driving, we found it.*



Nestled in the middle of nowhere, on the side of the road there it was, the Washington Winch, I thought it was going to be just the remains, but to my surprise it was in great condition. DELWP have put a roof over it to help preserve it.



→ All the winch sky lines, and anchor lines are still setup in the surrounding trees and forest. definitely recommend checking it out if you are in the area.

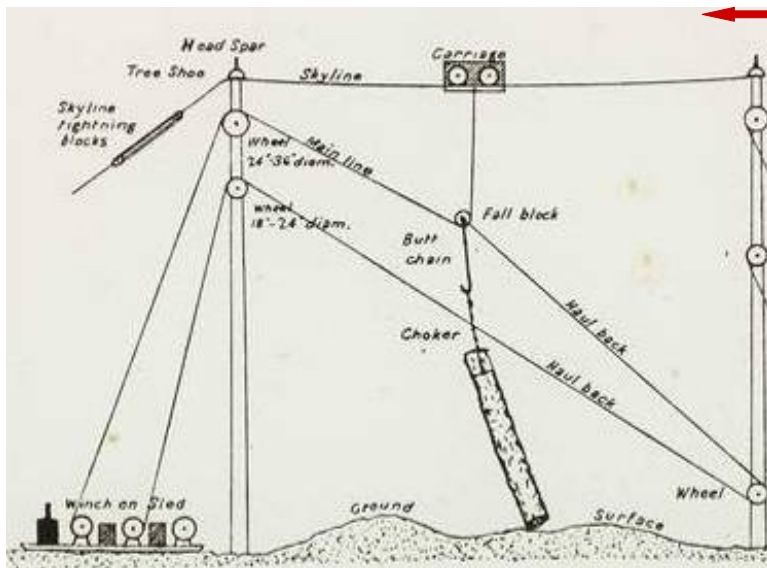


Having a closer look at it, it's in great condition, Hand hole doors have been removed from the boiler and looking into it, it looked to be in good condition. →

The winch and steam engine s pretty much still fully intact, it was good seeing something like this still out in the bush in such great condition,



The Washington Iron Works Winch, was a steam-powered logging skidder, or cable winch. It was one of two machines imported to Western Australia in the 1920s and was initially used by the Karri Timber Company to move the large jarrah logs.



Both winches were sold to the Forests Commission Victoria for salvaging timber in the Central Highland on the Toorongo Plateau near Noojee after the 1939 Black Friday fires. The machines were able to move large logs up to 800 m by high-lead cables in the wet and steep terrain. They were also capable of lifting logs off the ground, over rocks and creeks back to a central landing. Wikipedia  
The machine near Swifts creek was later sold and moved to its present site by local sawmilling company Ezards (this is the same sawmill company where the Cockatoo Island Engines came from) in 1959 where it operated until 1960-61. A large logging camp supported men operating the machine. This style of system, the sky line winch is still a commonly used system in North America with their use of grapple yarders in steep logging areas.

A bit of Info on the Washington Iron Works. →  
Washington Iron Works was a company in Seattle, Washington, founded by John M. Frink, that built these steam skidders. The company was active from 1882 until the 1980s when its various divisions – manufacturing cranes, logging equipment, and presses – were gradually sold off. The Works closed in 1986. Washington Iron Works engines revolutionised steam logging in the 1920s and 1930s. The steam-powered winches were mounted on heavy log skid frames which allowed the winch to be transported to new sites. Many Washington skidders can still be seen in North America.







***A recent road trip provided Peter Lynch with an ideal opportunity to visit the NSW Rail museum at Thirlmere and see works underway to reopen the historic loop line for rail excursions.***

The museum collection includes steam locomotives, rolling stock and other railway items from the 1850s through to recently retired diesel and electric units. It is around 100km south west of Sydney, not far off the Hume Freeway and best visited at weekends when excursion trips are running. Be prepared for some walking as the vast site includes historic Thirlmere station, Exhibition Building, the Great Train Hall, Engineering workshops, the working Roundhouse, full size turntable, café, picnic area and sidings housing their active heritage fleet.

The first railway in NSW opened in 1855 between Granville and Sydney Central using locomotives, rolling stock and rails imported from England. It is fitting that one of those early 0-4-2 tender engines (M78) takes pride of place at the museum entrance.

The NSW government had decided in 1852 that all rail lines would be broad gauge (5'3") but changed their minds a year later and decreed standard gauge (4'8 1/2"). In the meantime Victoria and South Australia had already ordered equipment for broad gauge, setting off a discrepancy that still haunts our rail industry today.

The NSW government took over operations when the private company who built the Granville / Sydney line failed and a period of rapid expansion followed. By 1880 NSW had built over 1300km of track including the spectacular Lithgow Zig Zag and Great Southern Line across challenging terrain as far as Wagga Wagga. A skilled local engineering industry grew up to support this expansion with the establishment of the Everleigh workshops in 1887 and in house production of steam locomotives from 1908 onwards.

Various examples of these are on display as well as one of the massive UK built Beyer Garratt articulated 4-8-4 + 4-8-4 heavy goods steam locomotives which went into service during the 1950s. With an operating weight of over 260 tonnes and tractive effort of 28 they could handle freight trains up to 1500 tonnes.



***Beyer Garratt 6040 on static display in the museum. Stable mate 6029 is still operational and used for enthusiast specials. These were the largest and most advanced steam locomotives in Australia but had relatively short careers as the diesel age arrived.***

NSW favoured diesel/electric locomotives from Canadian builder ALCO rather than the familiar American designed EMD units found on Commonwealth and Victoria Railways. ALCO used a four stroke diesel engine but had a worse reputation for emissions than our EMD two strokes with large clouds of black smoke visible under acceleration. (Perhaps Warwick can explain this ?)



***A more familiar locomotive to Victorians is this American designated EMD ( Electro Motive Division of General Motors ) , Australian assembled Diesel Electric*** →



Aside from the big locos there are dozens of other interesting exhibits. The locomotive Bronzewing is one of eight heavy shunters used by Australian Iron & Steel at their Port Kembla steelworks. It is displayed together with a steam operated tipping wagon used for dumping red hot slag from the blast furnaces.

← Shunter Bronzewing worked from 1937 to 1971 in the Port Kembla steelworks

Nearby was an eight wheeled radial truck passenger carriage dating from 1867 where the outer axles were allowed sideways movement to negotiate curves. This design was superseded by swivelling bogies.

***This first class eight wheeled radial passenger carriage is the only survivor of six built for the NSW railways in 1867.*** →



Amongst the other diverse exhibits were a travelling steam crane built by Harman of Port Melbourne

← ***The Harman steam crane was used mostly for loading coal onto steam locos and has been restored to working order by volunteers. .***

We have just got a similar one in bits from Cerberus . It can be seen down near the stink pipe but will be a long term project. Ed

Also on display was Ford V8 powered railbus used to pay remote staff and a timber bodied CPH rail motor which is operated for charter trips.

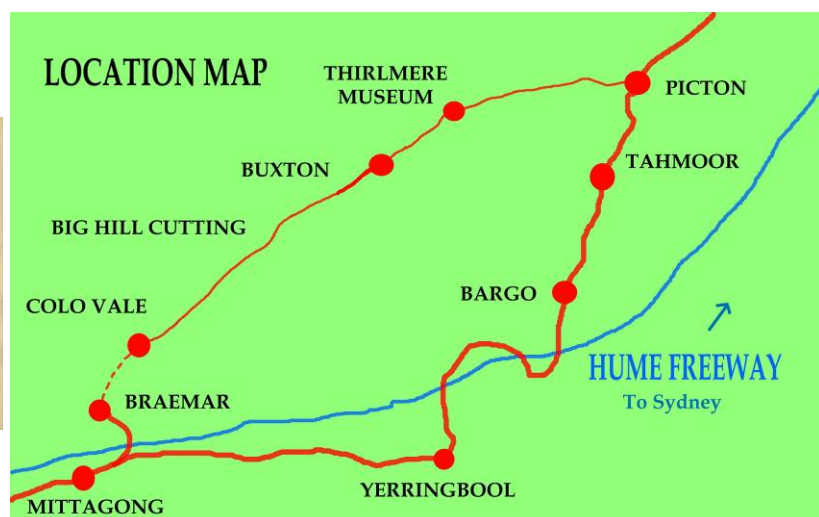
Many hours could be spent here but the daily excursion trip was ready to depart and it was time to leave the museum for another day.



Thirlmere is fortunate in that the station and museum are located on a bypassed 40 km section of the old main line between Picton and Mittagong. This is currently open between Picton and Buxton with government funded works under way to extend that to Colo Vale, providing a 23km section of challenging and scenic route for excursion trains. This will include the impressive Big Hill Cutting (opened 1867) and encourage tourist trade in Colo Vale.

***Early photo of the Big Hill cutting. This was cut through Saddleback Ridge in the 1860s with a blasting accident claiming two workers lives.*** →

This is expected to reopen in mid 2025 but anyone planning a visit should check the Transport Heritage NSW website.



Words and Photo thanks to Peter Lynch



# Steam Shovel



**SANDBLASTING SCRAPBOOK**

It is hard to describe the elation on arriving at the grounds on Tuesday Jan 7 to find the COMBINED SANDBLASTING and Painting equipment on site and the crew going full steam ahead after all the anticipation especially since at the last moment Monday was cancelled due to rain .

All suited up with breathing gear and protective clothing like a spaceman



Finishing off blasting the machinery deck back to bare metal . Bearing surfaces of the machinery were protected with heavy cloth reinforced masking tape



As many odds and ends were done as time permitted







The base in undercoat looks totally transformed. It is essential that paint goes on within a couple of hours of blasting as any moisture in the air will start the freshly exposed metal gingering up.

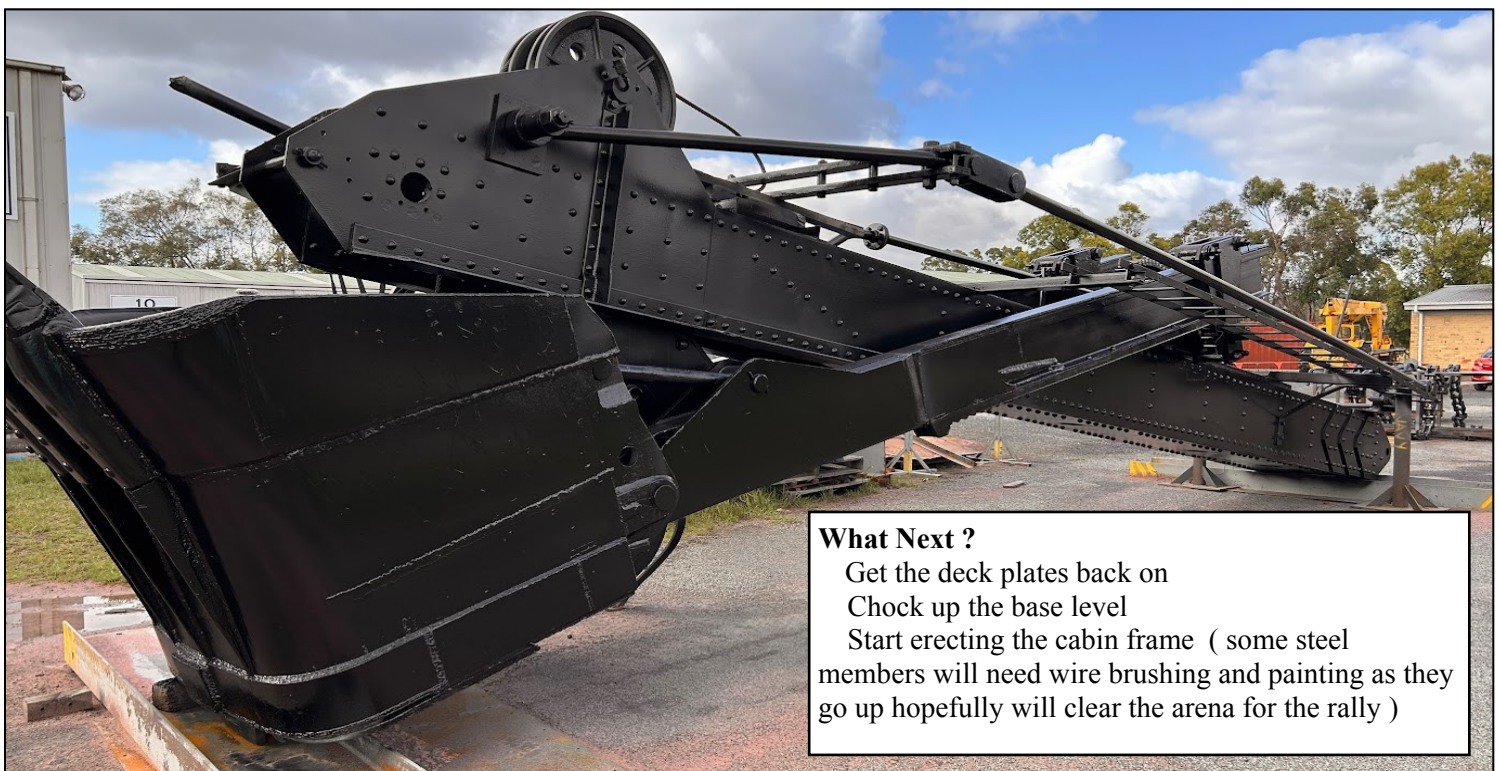
Special attention was paid to areas that previously had active rust cells



Once undercoated there was less urgency with the top coat .

The boom was finished off on the Saturday due to loosing Monday .

It looks very smart !



#### What Next ?

Get the deck plates back on

Chock up the base level

Start erecting the cabin frame ( some steel members will need wire brushing and painting as they go up hopefully will clear the arena for the rally )





### Koby Holding his Audience

During the week we had a father with his 2 boys visit the club . They seemed to be taking more than a casual interest in our diverse range of items on display but were a bit hesitant were to start so Warwick went over and had a chat to them . It seems they were particularly interested in our steam locomotives so were directed over to our rail yards where younger member Koby was cleaning out the smokebox of our locomotive Clive in preparation for the run day. It was quite a job as the smoke box has fine mesh in there as a spark arrester so the built up soot needs removing regularly.

I do not think our visitors had previously had the opportunity to see in a smokebox before and were keenly interested in the plumbing it contained . Koby was soon enthusiastically explaining all about boiler tubes , steam plumbing to the cylinders and blast pipes , they were lapping up every word. It certainly made their day and Koby's as well .

It just goes to show if you see visitors wandering around not sure what there is to see open up a few building and make them feel welcome . They could well be potential members !



### Fowler Crawler Shakedown

Rod Hulls giving his recently acquired Fowler crawler a shakedown watched by Tony and Ron King. Derived from the Field Marshall tractor it has the same horizontal single cylinder 2 stroke diesel . A bit like a Bulldog but a full Diesel so starting is a bit different . No blowlamp but a smouldering taper is screwed into the head like a glow plug and the engine decompressed . It is then spun over by hand and when a bit of speed is built up the decompressor drops and she usually fires first compression . Under cold conditions it is even more quirky . The engine is turned until the marks on the fly wheel show the piston has just gone

over top dead center . A 12 gauge shot gun style cartridge , minus the shot , is placed in a breach block that communicates with cylinder and the firing pin given a sharp tap . A great bang and puff of smoke startles unsavvy onlookers and lo and behold the engine is running . The expanding gases from the cartridge propel the piston down spinning the crank with such vigour that on next compression fuel is injected and she is up and running . A great spectacle for a rally but cartridges are now hard to get and are very expensive. Have a look at our very rare sectioned Field Marshal tractor in Bay 5 to see the workings





## First RunDay of the Year

With the boiler inspections done mild weather and members recovered from Christmas it was good to see mobile steam out on the arena again. Jo Lloyd had her Ruston Proctor 4 hp steam tractor George out. Also out and being enjoyed by our younger member was the club's Marshall 1937 Steam roller originally bought by the Moorabbin City Council it was the last new Marshall steam roller sold in Australia so has not moved far from home. Craig Jackson also had his steam portable in steam out the front of shed 7. Aaron Morris photo

## Willans Refinement Pays Off

The Diesel section have been putting the final touches to the Willans Air blast Diesel over the last few months in preparation for the rally while at the same time getting used to its idiosyncrasies and now have it completely tamed. This is in contrast to the first few runs where it just produced enough power to be self sustaining while produced huge clouds of white choking smoke which filled the whole shed with an occasional ear splitting report accompanied by an almost random firing.

*The smoke and noise had to be seen to be believed on the first few runs of the Willans screen snap of one of the Videos 11/05/2023*



Initially much effort was put into trying to balance the fuel between cylinders by adjusting the 3 needle valves in the fuel distribution block but this was flying blind with nothing useful in the operators manual.

More systematic trouble shooting followed which included reseating and repacking the injector valves with materials more suited to operating at full blast pressure but this was not the answer. Attention then turned to a leaking gasket so the head was resurfaced thanks to Paul McMillan. Quite a job since it weighed 1/2 tonne but that was not the answer. In desperation an overhead exhaust pipe was made up and run outside through the back wall. With the noise and smoke out of the way it became even more obvious not all was right. The breakthrough came when Kerri Shaw noticed the valve timing of the last cylinder was about 40 deg late. It transpired the camshaft which is in sections had slipped in its coupling at number 3.



With that corrected things immediately began to make sense and it started to respond to tweaking of the fuel distribution valve needles which were found to be incredibly sensitive to a fraction of a flat on the lock nut. With it now running properly with balanced exhaust gas temps of only about 110 deg C the most niggling thing was the intake noise of the 1000 psi starting and blast air compressor. An appeal to a very helpful compressor concern soon produced a silencer that all but eliminates any noise.

*The Willans engine now runs with an undreamed of degree of refinement and ease of starting such to the extent that it was run regularly throughout the Feb RunDay. It is a great credit to those on the Willans team over the last 40 years*





The Willans was started up specially for a group of appreciative visitors that had missed its scheduled runs earlier in the day. They were taken outside to observe the exhaust and were mightily impressed by its rhythmic chuffing and almost complete absence of smoke. A far cry from its first few runs.

*The new exhaust can be seen passing out through the back wall.*



*In the background can just be seen the flat TV screen Ian Malcolm has just set up in preparation for the rally.*

*It cycles through about 20 slides slowly enough to be read by our visitors so those not familiar with the Willans story can get an appreciation of the incredible achievement of getting this 100 year old Diesel engine running so sweetly.*

It brings home just how right Diesel got his engine in the first place. It took some others from over the channel another 50 years!

## Getting Grounds Ready for the Rally

Peter Morris has been busy with his towed scraper levelling of ruts in the overflow car park and smoothing out the designated alternative site access lane down the West side of the grounds.



**Franna Feedback** The story in last month's SS created considerable interest with reports coming in of all sorts of home made and early factory conversions of trucks and tractors to mobile cranes.

While some were quite good others looked pretty useless and downright unsafe

*Certainly a home made job with a jib attached to a stripped out Blitz.*

Hard to see how it works but the way the jib is mounted suggests any old angle iron was used with no understanding of load paths. The unpainted beams going to the front look like a later addition probably to stop the chassis bending.

Definitely not of sound design or construction. Today it would be a work safe nightmare. Aaron photo





# Jumbo Cranes

An interesting crane that Aaron came across was this Taylor and sons Jumbo yard crane .

*Closely studying the sign when blown up proclaims it belonged to Maryvale Timber & Hardware Copty Ltd Morwell , an old concern that does not seem to be around anymore.*



Aaron pic

Painted on the jib is 4 tonnes which no doubt refers to the hook on the main jib , not the cobbled up extension .

*← Actually the jib action is not very apparent from the above photo but this internet pic from Alan's Meccano page with the boom extended makes it clearer.*

The hydraulically elevating jib is hinged in the middle giving an action resembling an elephants trunk with up and down and in and out but no slewing sideways.

Apparently an English creation. There is a fair bit on the internet about Jumbo cranes that reveal some surprising connections. Here is a glimpse

*In 1945 Taylor and Sons manufacture of lifting*



*equipment since 1895 got a Manchester contract to move around bales of cotton imported from America so they came up with a design for a yard mobile crane which was originally based on WW 2 surplus Morris 4x4 vehicles. Named the Jumbo it had twin hydraulic rams for raising and lowering the non slewing jib and sold quite well ( even as far afield as Morwell ) When surplus 4x4 s got hard to get some were based on a Fordson tractor giving rear steering action (similar to our little crane )*

*In 1956 with the development of Rotary hydraulic couplings they introduced the slewing hydraulic jib which soon caught the attention of Coles cranes and went on to be further develop into a very successful range of mobile cranes.*

*In the 1960's they developed the telescopic jib which was such a success they were fully absorbed by Coles by 1982 who where in turn absorbed by Gove who eventually folded around 2000 . Wiki.*

It is interesting to see how all this dovetails into Franna and Terex as internet material suggests Taylor's Jumbo as being the first hydraulic mobile yard crane.. I guess the winner writes the history.

*← A Euclid dump truck , of similar type to the one Peter Morris has., converted to a mobile crane with the addition of a telescopic jib . The extra heavy counterweigh may go some way to explaining the bent jib Aaron pic*



**Regular Events :-** MSTEC Social meetings, 8 pm Scoresby. First Wednesday of each month .

Museum open every **Thursday, Saturday and Sunday** . Miniature Train running every Sunday 11 am to 4 pm

Museum Machinery in action. Last Sunday of each month **Except end of year December.**