

Goldsmith

The Pyrenees Heritage Preservation Magazine

Feature Supplement of the Goldsmith Gazette

October 2014 No 129A

Lake Goldsmith Steam Preservation Association Inc

Registration No:- A0032895



William Adams



NOVEMBER 1 & 2

The Association, William Adams and Caterpillar® Present

THE CATERPILLAR® RALLY

At Lake Goldsmith Rally Grounds

1234 Lake Goldsmith-Carngham Road Lake Goldsmith Vic Melway Ref X926 H3



The Holt 75 Road Train on its 120 Mile trip to the rail terminal at Bourke

100 years ago in 1914

The First HOLT 75 Caterpillar to arrive in Australia made its first Road Train trip taking wool from Kallara Station on the West Bank of the Darling River to the Rail Terminal at Bourke in Western New South Wales.

100 years later in 2014

You can see this Tractor at the 104th Lake Goldsmith Spring Rally
And if you read on you can follow the story of its recovery and restoration
by the Williamson family commencing on page 3

The president, committee and members of the Lake Goldsmith Steam Preservation Association hope that you enjoy this edition of Goldsmith and look forward to your patronage at the forthcoming Rally on November the 1st & 2nd

The Theme for this Rally is Caterpillar®

This US based manufacturer produces an enormous variety of mobile machinery
(see www.cat.com/en_us/products/new/equipment.html)

This Rally is supported by William Adams & Caterpillar

(www.williamadams.com.au/pages/home.aspx)
(www.caterpillar.com)

who will be displaying some of their historic collection and a range of new equipment at the November Rally at the Lake Goldsmith Rally Grounds

**Steam and Internal Combustion
machinery displays by associated clubs and exhibitors
Founders and 60 or so members sheds
Food and Product vendors
Will all be there too**

Find us on the net at

www.lakegoldsmithsteamrally.org.au

Or contact us at

info@lakegoldsmithsteamrally.org.au

Or contact the editor:- if you have a story of interest, or wish to
Register to receive the bi-monthly Goldsmith e-magazine
goldsmithgazet@optusnet.com.au or Ph 0425 744 052

or write to us at:-

The Secretary P.O. 21 Beaufort Vic. 3373

Mission Statement

To foster, nurture, encourage and demonstrate technical, agricultural and life skills associated with the Industrial Era.
To provide a quality environment where these skills may be used to educate and entertain members and visitors.
To run two weekend rallies each year, and be available at convenient time for other interested groups or individuals.
To conserve and develop a heritage collection.

Copyright

Editor:- goldsmithgazet@optusnet.com.au

The authors appended ©, of work in this newsletter retain the copyright of their work and images. You may download, display, print and reproduce their material in unaltered form only for your personal use and use within your family or organisation. Apart from usages permitted under the Copyright Act 1968 such as "Fair Dealing" for the purpose of reporting, all other rights are reserved. **If your organisation is a Periodic publications dedicated to the preservation of Heritage structures, machinery and skills, or a bona fide news media you may archive and republish this material free of charge without further authorisation**, provided that the source of the material, that is "Goldsmith Gazette" and the "Authors name ©", is acknowledged, and that the material is not used for advertising or endorsements, and that the user does not purport to licence, or assign or sell copyright to other parties. All other rights are reserved. Requests for other use of copyright material may be directed via the editor.

The Kallara Holt Story

The following story has been written by Gary Williamson to record the story of his family's association with this tractor from the chance discovery of its existence, through the search for parts and history, to the restoration effort that has brought the machine and its place in history back to life. This story was written as a family record of events with no expectation of being published.

This is an unusual story with insights into outback recycling and local history.

My brother Jeff and I were talking to the late Tod Watson at Echuca, when he mentioned that Stan Hazelman might be interested in selling the McDonald Tractor that he had owned for the last 20 odd years. Mr Hazelman sold his 1918 2 Cylinder to us and mentioned that Mr Watson had once told him of an early Caterpillar Tractor with a large front wheel. We went back to Todd who told us that it was on an old mates place, but it was very rough, with too much missing for him to worry about.

The property had been sold by his old mate Peter Russ a number of years ago, and he had moved to Mooculta Station out from Booligal (North of Hay on the Cobb Highway in NSW)

We decided that a trip was necessary, so on the 30th of June 1987 we went North.



Holt 75 Tilpa bits pit

We called in on Mr Russ, after a very wet and slippery trip on the Cobb H'way. He told us that he had dragged the tractor 20 miles back to his farm workshop in the 1950's to use it for nuts bolts and steel. He did not know what had become of the engine.

To avoid the Cobb H'way we went the long way to get to Cobar, where the new owners, Barry Grant and Bob Rice were found in the evening at the Great Western Hotel.

Bob lent us the gate key to his Station Curranyalpah. (near Tilpa on the Darling River in NSW)

The next day we found our way to the farm scrap heap and my brother and I looked at each other thinking where is it? Some time passed before we realised that we were standing in the middle of the Holt. Just about every bolt had been removed. We pieced the remains together mentally, there was enough left to look impressive, but it was far from complete. A decision was made to try and find out what had happened to the rest of the tractor.



Holt 75 parts

Kallara Station, the original owners of the Holt seemed like a good start. Peter McClure thought the motor had been down at the old pumping station years ago and it may have been pushed into an old wash way at the Darling River along with everything else.

We then called on Brian Murray next to Killara Station who had been in the area longer. He thought the engine was sold at a clearing sale years ago, and that the Holden Dealer in Bourke had had something to do with it.

We left Tilpa thinking that if we had time we would retrieve the Holt remains as Bob Rice was hoping to use the main frame steel for gate posts.

Peter McClure told us about another tractor on a farm that he had worked on in the 1960's which had been left beside a shed. The tractor was a Jelbart, but every nut and Bolt and most of its steel had been removed. The owner said we could take anything that we could use, so the Valiant went out of the gate with its nose in the air.

We did not do much more about the Holt until 2 10 1989, when with my TK Bedford truck in shape, and my brothers Falcon ute on top we left home. A brake line broke at Ivanhoe (at 6.30PM) which is a long way from the parts supply. We unloaded the ute and went to Tilpa for a bite, and then back to Carranyalpah and camped the night. Bob Rice met us at his front gate in the morning. We

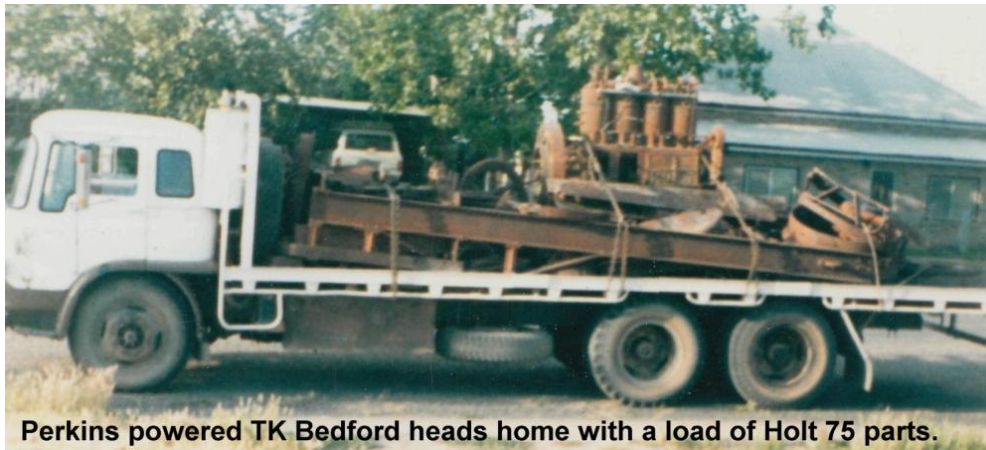
unloaded some fence post steel to replace the main frame members, and loaded the Holt parts using the hydraulic winch and ramps that I had fitted to the Bedford. It was a bit warm (42C by 11AM) so we were pleased to get on our way and call in at the Tilpa Pub on our way to Kallara Station.

We left the truck at Kallara and went to Hungerford and on to Roma in Queensland expecting to pick up a 1916 Waukesha engine which we needed for another project. Unfortunately it turned out to be a 1926 model.

We met Derek Williams, the owner of the Holden Dealership in Bourke on 6 10 89, who filled us in on a lot of the Holts History. One of the original drivers of the Holt, Mr Bowden was the main force in bringing the Holt engine into Bourke where it was to be mounted with a plaque stating that it was the first petrol tractor and Road Train in the area and how it pulled two big wagons of full of wool bales 120 miles from Kallara to the rail head at Bourke. The Holt never worked on Kallara Station, all of its wool was taken across the Darling River by flying fox and then loaded on to the wagons.

Mr Bowden had passed away since I had last talked to Mr Williams, and he was willing to sell the engine. We gave him an offer, but he wanted to think about it so we went back to Kallara to get the Radiator surround and bottom of the gearbox which was on the other side of the river, so we used their small boat.

I went back to Bourke and agreed on a price for the engine, and met a local historian, Alan Barton, who was able to fill in much of the Holt 75's history.



Perkins powered TK Bedford heads home with a load of Holt 75 parts.

The Holt 75 Caterpillar Tractor was brought by the Melbourne based Officer brothers, who owned Kallara Station from 1879 to 1926, as a reliable means of transporting wool to the rail head at Bourke. The trip was 120 miles and the trip took 5 days. The Tractor weighed 10 Tons & 7 Cwt and hauled 2 special trailers which carried up to 20 tons of wool, and cost

almost as much as the tractor. The original drivers were Laurie and Wattie Bowden.

The trips started in 1914 and appear to have continued into the early 1920's.

When the tractor was retired from towing wool wagons it was used to drive the Flying Fox to load wool onto the trucks that replaced it. That was its job until 1925/6 when a larger punt operated across the Darling making the flying fox obsolete. The engine was then removed and taken to Kallara to drive their irrigation pump. It was used there until a war surplus Cummins replaced it in the 1940's

It then laid in disrepair until it was sold at a clearing sale around 1980 and ended up in Bourke.

We got the engine loaded and headed for home via Condobolin.



The massive low tension American Bosch originally fitted to 1914 models used an external coil for HT. The tractor is using a 1915 high tension model.

The Bedford gearbox blew up and tore the centre out of the clutch, so I had a week in West Wyalong while I fixed it.

I contacted Jim Herner in Ohio USA, who had an article in the Gas Engine Magazine No5 Vol 20. He wrote back to say that he would like to look at the Holt and would next June be OK. Mr Herner gave me photocopies of spare parts and maintenance books, and a pile of 6" high photos from his 60HP and other 75 Holt 75's getting restored. Jim's firsthand knowledge was very helpful.

Eddie Bedwell contacted me after hearing of the Holt's arrival. Eddy worked at William Adams and was able to help with more information on parts and maintenance.

An advertisement in TOMM magazine found a Carburettor in Portarlington Victoria, a Magneto was acquired at a Ballarat Swap Meet, and an oil box was located in Adelaide South Australia. A new oil pump drive gear was made, and cast iron replacements were made for valve rockers, Magneto, oil box mounts, front pulley, crankcase side plate, sight lubricator and some governor and throttle parts.

The Rings, Bearings and Valves were all serviceable.

On the 10th of October 1991 Jeff and I finally managed to get back to the area where we found the Holt 75. More parts were found, the steering box cover, track pins and a few steel parts.



Front wheel and Steering Gear

We also tracked down the Government Experimental Farm that had purchased a Holt 60HP Tractor in late 1914 or early 1915, and a few more in following years. One of these Tractors was left beside a Road at the sight of the main depot. Many parts had ended up around the district over the years and many were recovered, a 60HP Cylinder, steering box worm, track truck springs, 5 track cleats, reverse idle gear and shaft, sliding gear and the remains of a frame. (one side and & front ring).

In TOMM No 45 P3 Geoff Wegnelin of Roleystone, near Perth Western Australia mentioned that he had seen the remains of a Caterpillar (similar to the Ruston in TOMM 43 P3) at Bruce Rock W.A. some 30 years earlier.

In November 1995 with my Wife, 15 month old son Evan, and brother in-law (who lived in Perth) we tracked down this lead and found the front wheel, track idlers, 3 track rollers, frame turning ring and 2 full tracks. (They had been laid on their side in a circle, filled with rubble with a water tank put on top.) This Holt 60 had been brought by a Mr Hedges. It was a later model, about 1917 and provided many needed parts.

On 7 2 1996 Jeff made his way back to Tilpa with his mate Pete. They found a few smaller parts and called in on Peter Russ who had pulled the Holt apart, but did not find any more parts. They went to the Government Experimental Farm area and spent a few days there and found some more parts. These included track chain, a drive chain cover, another 60HP cylinder, cylinder head and conrod.

Some of these parts came from a pile of dirt the size of a small room, and with only a folding army shovel at hand only so much could be found.

In October 1996 Jeff and I headed North again. We arrived at Tottenham about 4PM and caught up with Victor Jarvis. Victor had ridden on the 60HP Holt when it was moved from Tottenham to the Trangie Experimental Farm. This Holt was scrapped in the early 1970's.

At Tottenham we also met Bob McCarthy who was born in 1930 and grew up on Bush Home which was part of the Experimental Farm. They used the radiator sections for one way sheep gates in the sheering shed. Local scrappy Clifford Wilton got them. That night we ended up at the depot and found a track plate, fan blade and roller dust cover.

At Bush Home we started digging in a pile the dirt that Jeff and Pete had found earlier in the year but we found very few Holt parts, so we started digging in the nearby rubbish tip and found a radiator surround, steering sector, foot plate, front wheel scraper and front wheel turning ring mount.

We also pulled a track chain out of the water, but it was too rusty so we left it there.

As we were leaving and saying our thanks, we noticed a modern rubbish tip, where we found a track roller which someone had been using to smash bottles on.

Peter Larkin of Myalls was not home, but the station hand pointed us to the silt scoops which Trevor Nolan (who had died recently) had help to make using a good lot of Holt checker plate. Unfortunately the scoops were still in use.

Trangie Experimental Farm was the next stop. The old tip, called the wire paddock covered a few acres, but we did manage to find a front main bearing cap, manifold clamp, oil pump housing, upper track roller and some checker plate left overs of a later type. (This must have been the later model Holt). We left at 5PM and headed home. On the way we found a small open crank engine and managed to fill the Ute and Trailer with Model T parts.

Restoration of the Holt 75 has been a slow but steady process. On 1st September 2000 we towed it out of the shed and turned it around. This was its first move on track since Peter Russ had towed it to Curranyalpah Station in the late 1950's to use it for steel and, and nuts & bolts.

On 19th August 2000, the Gearbox housing was welded back together, as were the clutch shoe adjuster lugs.

On 28th of September 2000 the engines was started for the first time since the 1940's.

Eventually enough 1" steel plate turned up to fabricate the missing turning clutch drum, \$30 to profile cut and \$80 to roll, and the drum was machined in situ on its own shaft.

The Weekly times had an advertisement for a clearing sale at Rosedale Station, next to Kallara, so on 17 5 2001 Jeff and I again went to Tilpa. Here were no Holt parts at Rosedale but local Historian Michael McInerny was and he told us about the Kallara books at the National University in Canberra.

Kallara had a book that was just for the Caterpillar.(*The records in this book were made using a letter copy press which was an early technique used to transfer an ink image onto a very thin tissue paper.*

The records started 100 years ago and are very faint and currently difficult to copy without risk to the document)

We also met Justin McClure, one of the owners of Kallara who let us have another look around for Holt parts. We found one Track adjusting rod, and the radiator mounting plate plus some small bits.

Next was a trip to Curranyalpa, and the scrap heap revealed a few more track gear dust covers and parts for the gearbox cover. On the way back we picked the Jelbart tractor remains we had first seen in 1987. This all went into my brothers Land Cruiser & 6 * 4 trailer.

I have been collecting 1-1/8" shafting to re-pin the drive chains. Jeff had cut filed and drilled them. I fabricated a gearbox cover housing and bearings from steel.

8th March 2002. This time next year a National Rally was to be held at Heyfield in Eastern Victoria. A determined effort was made to finish the Holt and get it to the Rally.

On the 16th of April the steel track guards were cut and rolled from some old style diamond pattern checker plate.

By May 2002 the fuel tank and radiator frames frame and surround were made, as were the track adjusters, steering Column, clutch turnbuckles, and magneto, fan, throttle and Magneto linkage.

June 2002 saw the turning clutch linkages completed.

July 2002 saw the casting and machining of hub caps and Bronze gearbox parts

August 2002. The gearbox input shaft, drive dog, bearing caps, and the gearbox white metal bearings were poured and scraped to size.

September 2002 continued with bearing scraping, making gearbox thrust bearings, The radiator manifolds were cast and machined. We also took a trip to the ANU in Canberra to see the Kallara record sheets.

October 2002. The Gearbox was fitted and the radiator was soldered. The original gearbox mounts were found to be 3/8" out of alignment, which meant that the cross member had to be redrilled (this is probably why the drivers had had trouble with the main clutch and drive.) The floor plates and



HOLT 75 Lubricator and Magneto (1915 HT)

radiator were fitted, and the main drive thrust rollers were made, and the upper track support rollers from Trangie were fitted and 7 new ones were cast.

November 2002 Fitted Brake and water pump and connected cooling system. Started painting the engine and radiator

December 2002 Started the engine and blew No 3 Cylinder head gasket, so made new copper fibre ones, and on the 18th (my birthday) I drove it out of the shed and painted it.

4th January 2003. Jeff and I went up to find the Wagons that the Holt Caterpillar 75 towed from the Kallara to Bourke.

From the Kallara books I found that a Wagon had burnt near Louth, but could not find any trace of it. At Kallara Station we did find a wagon which we worked out was the rear one of the two.

They were built by R.J.L. Hildyard at Kensington, near Melbourne Victoria, and most of the dimensions were in the Kallara books.

There was a similar wagon that a Mildura collector had acquired 2 or 3 years before from the Marra Sand Hills. Was this the burnt wagon rebuilt? While we were looking for the burnt wagon we came across Mrs Frazer who is the daughter of Arthur Laycock who was a pioneer of the area who had taken the photographs of the Holt when it was broken down near Louth.

Misfortune struck on the 9 of January, when on my first day back at work I fell and broke my right leg which left Jeff continuing with the last jobs on the Holt, while Milners Canvas Works completed the canvas curtains in February. Our 6 year daughter Hannah fell at school and broke an arm, so I had company and time to complete the Holt display boards. The plaster was removed on February 20 and I was able to complete the grill and air warmer, and prepare for signwriting which was done by our friend Greg Wilson from Inverloch

With the painting finished and curtains fitted the tractor had a test drive and made some final adjustments to the clutch and governor. We planned to get to Heyfield at Midday on the 7th March, but a broken drive chain link and cracked track link postponed us until after 5PM.

At the Heyfield Rally the Holt ran without any problems. When we had unloaded it a fellow came up and handed me a number of broken bolts. Apparently, when the chain had broken they were sheared off and sat there until we had unloaded

We started the Holt 3 times a day and ran it for around 45 minutes. All up it consumed \$100 of petrol. The only real adjustment for the weekend was the left track alignment which had caused it to grab the front idler, and break the chain link.



The Holt and I received the "BEST EXHIBITOR Award" (Geoff Whishart Perpetual, committee choice Trophy). The adjacent picture was taken at Korumburra Tractor and Working Horse Rally by Warwick Bryce.

This brings us to the end of Gary's Holt project records.



Gary and Jeff have provided some other information on this Holt 75

The Lubricating Chart below gives a layout for most of the major components. Each rear track is driven by a chain from their respective clutch shafts above, and the track is kept in tension by the compression side rods which locate and align the front idle pulley which unlike a fully tracked vehicle, does not move vertically. The four track ground rollers move as a spring loaded block.

The Gearbox at E has 2 forward speeds and 1 reverse, and it is driven from a double plate, hand lever operated, over centre clutch on the engine flywheel.

The Gearbox drives one of the 2 turning clutch drums, which double functions as crownwheel, via a bevel pinion on the output shaft.

The second turning clutch drum double functions as the tractor hand brake. Unlike similar fully tracked vehicles, there are no steering brakes.

Steering involves disengaging one track using the over centre locking clutch and steering the front wheel.

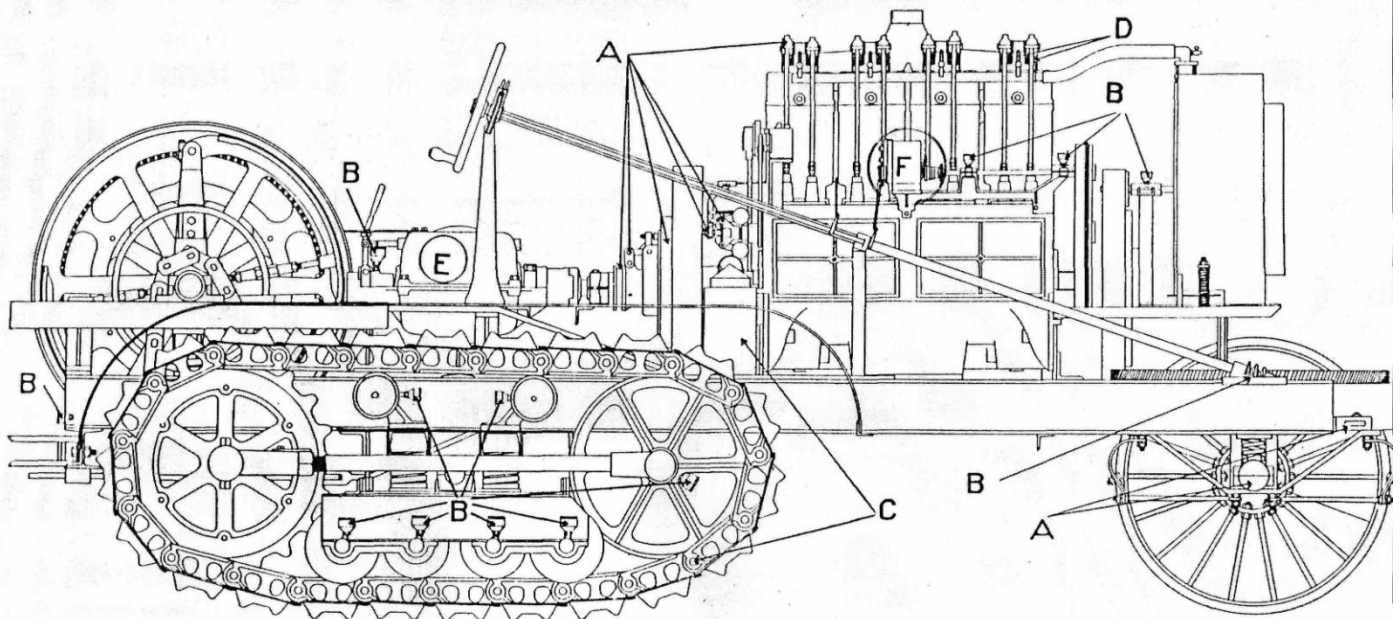
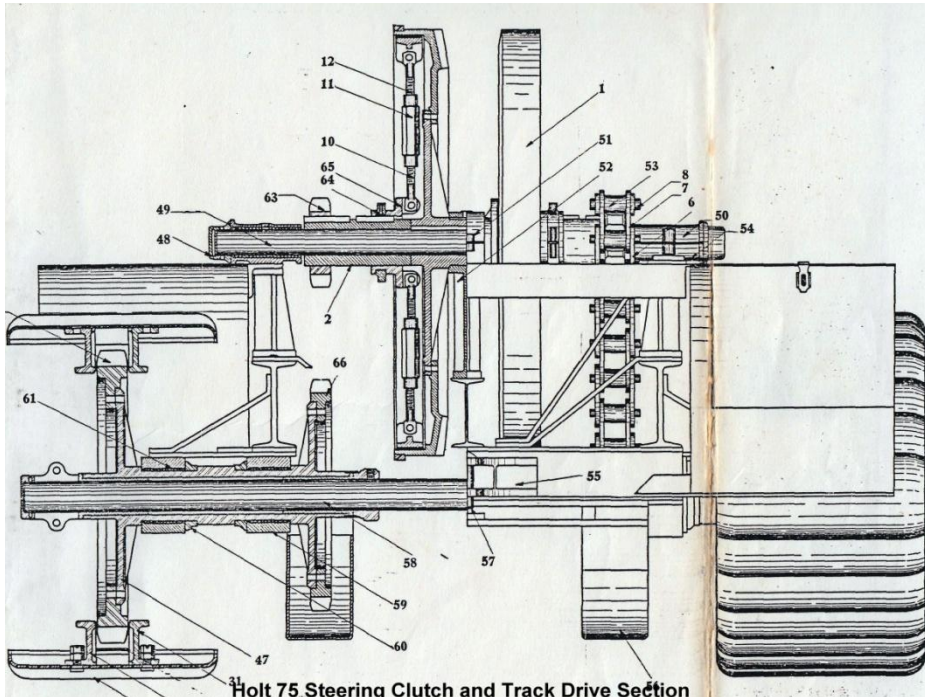


Fig. 1. Lubricating Chart. Holt 75 Caterpillar



Holt 75 Steering Clutch and Track Drive Section

This sketch is a combined section/view through the rear transmission. The turning clutch drums both turn continuously. Each clutch has 2 expanding shoes which are attached to the drive chain sprocket via a hollow shaft.

The clutches can be locked open by the clutch over-centre hand levers.

The lower drive chain sprocket is attached to the track drive sprocket via a similar hollow shaft which rotates on a stationary shaft.

The Tractor brake is a contracting band See No 1

Hawaiian Business Grows

The rapid and striking growth of our business in the Hawaiian Islands is only additional evidence that the plantation owners and operators in our island possessions are thoroughly up-to-date in their adoption of the most efficient power-farming machinery. Many Caterpillars have already been sold in the Islands and are in operation there, and many more will be sold in the years to come, for the Caterpillars now working in that far off part of the world are giving such excellent satisfaction that others cannot fail to observe how materially they reduce plantation operating expenses and how greatly they lighten labor.

Some time ago we announced that Mr. Harry L. Freeman, who made a trip to Hawaii early in this year to specially survey the field, would continue there as direct factory representative of this Company, with headquarters in Honolulu, in the offices of Catton, Neill and Company,

Limited, our Hawaiian representatives.

The Hawaiian Islands are a long way distant from the main offices and factory of The Holt Manufacturing Company, but the same Holt Service that means so much to our customers here at home is extended to our customers there. A full stock of Caterpillar parts is carried in Honolulu, so that extras can be obtained by our Island customers with the same promptness that is a feature of Holt Service in this country.

At this time we are pleased to announce that Mr. R. A. Hudson, for several years a service man in California, has been sent to the Hawaiian Islands and will hereafter be stationed in Honolulu for the benefit of our Hawaiian customers. The services of Mr. Hudson, who is a Caterpillar expert of long experience, may be obtained upon application to Mr. Freeman or Catton, Neill and Company, Limited.

From Bourke to Kallara in 5 Days

The Sequel to an Article in the June Issue of "The Caterpillar Times" on "Wool Hauling in Australia"

This little magazine, issued every month, contains sixteen pages of reading matter, chiefly concerning the Caterpillar. A remarkable proof of Caterpillar merit rests in the fact that practically all the letters and photographs that appear in these pages come to us unsolicited, from the owners and operators of Caterpillar Tractors. Sometimes there is an interesting story connected with the sending of the letter itself, as in the case of a recent communication from Mr. H. S. Officer of Kallara Station, Louth, New South Wales.

Some time ago a traveler in New South Wales observed a Caterpillar hauling wool over the roads in a part of the country not reached by the railroads. He was much impressed by finding this modern method of hauling in a section where bullock teams furnished the only other available form of power, and remarked about the work in a letter to "Motor Traction," a magazine published in England. That magazine published an item regarding the tractor and commenting on its splendid performance over poor roads. One of our friends noted the item and sent it to us and we, in turn, reprinted it in the June issue of the "Caterpillar Times."

Now, up to this point no names of places or people had been mentioned, but Mr. H. S. Officer, when he read the item in the "Times" some weeks later, immediately recognized it as referring to the out-

fit operated by his firm and sent us the following most interesting letter and the two photographs reproduced herewith:

"The Editor,
The Caterpillar Times,
Stockton, California.

"Dear Sir:—

"I have just read with interest your remarks in the June issue of the 'Times' on 'Wool Hauling in Australia' by the Caterpillar.

"As my firm was and is, so far as I know, the first and only sheep farmer to use the Caterpillar for the haulage of wool in this country, no doubt the remarks apply to us and to this station (or 'ranch' as you would call it) and I take great pleasure in forwarding you herewith 2 photos of our 'outfit' in active service.

(1) 75 h. p. Caterpillar with 2 wagons loaded with 18½ tons of goods and supplies for station use and a 10 h. p. portable steam engine hitched on a behind.

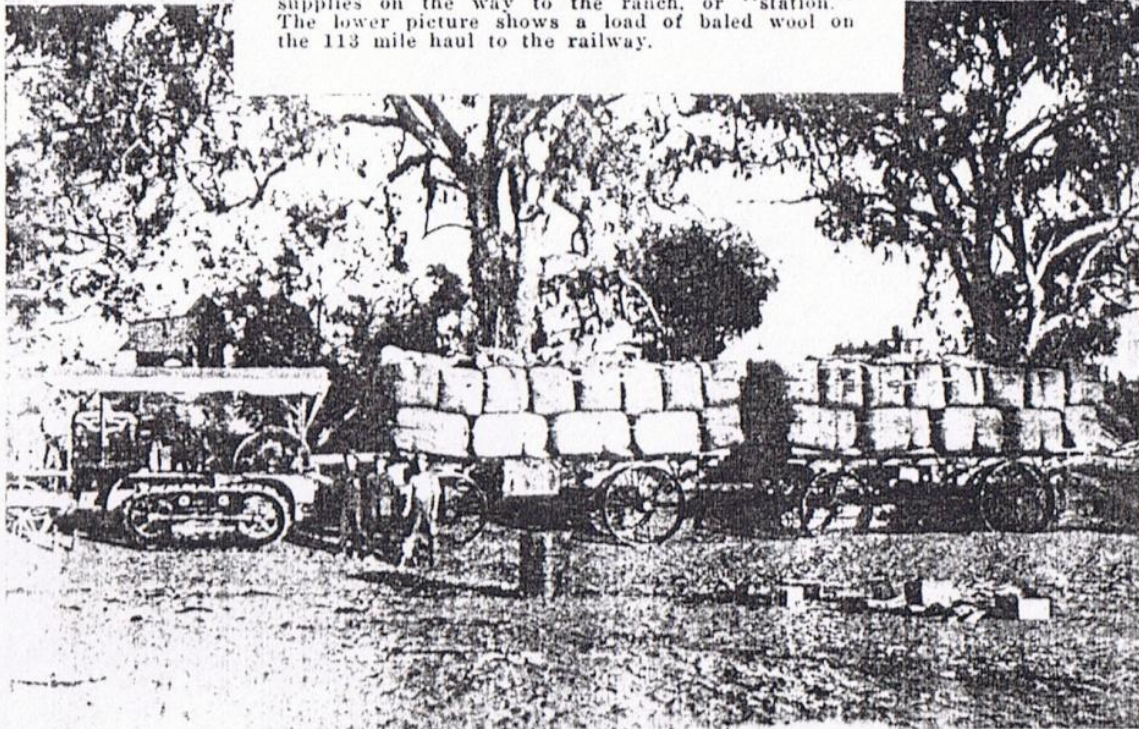
(2) Same Caterpillar and wagons loaded with 16 tons wool and about 1 ton of fuel and sundries.

"I am sorry the pictures are not better but they are all I have or can get in this out back spot, 600 miles west of Sydney, on the Darling River.

"Load (1) was hauled from Bourke, the nearest railway to here, 113 miles, in 5½ days and load (2) from here to Bourke in 5 days over roads which must be about



Two views of the Caterpillar "Seventy-Five" used by the Officer Company for hauling in New South Wales. The upper picture shows a load of supplies on the way to the ranch, or "station." The lower picture shows a load of baled wool on the 113 mile haul to the railway.



the worst in Australia for heavy going owing to the very long stretches of deep drift sand.

"The tractor has done wonderful work during the three years we have owned it and which it is certain no form of wheel tractor or lorry could have done. I will always have a good word for that wonderful animal, the 'Holt Caterpillar.'

Yours truly,

H. S. OFFICER."

ONE FARMER'S ADVICE.

Not long ago a prospective purchaser of a Caterpillar wrote to Mr. Adolph Irmer, of Withrow, Washington, asking

his opinion of the Caterpillar. In doing so, he made a wise choice of an adviser, for Mr. Irmer has a Caterpillar which is now in its sixth year of service and is therefore well qualified to state how the Caterpillar stands up, what its upkeep will be and what service it will give.

In reply, Mr. Irmer stated:

"You would like to know a few points about the Caterpillar. Will say that it is about 25 per cent. cheaper than horses. The upkeep is reasonable. I would advise you to get a Caterpillar if you are going to get a tractor at all, as I am pretty well acquainted with other makes about upkeep and running expenses. The Caterpillar has them skinned by far."

Why Merinos have Risen.

The great change which has come over Merinos will no doubt have surprised many readers, but it is easily explained. Belgian and French spinners have sent into Leicester and district every week huge weights of mule-spun yarns, all made from the fine, short Merinos, of which they bought very big quantities in Australia. When these wools are carbonised they do exceedingly well for making a nice, full-handling Merino yarn, being largely used in the Leicester hosiery trade. Of course, the war has stopped all shipments, consequently Bradford Merino spinners have been called upon to satisfy the demand of all hosiery manufacturers. So acute became the situation three weeks ago that the Government stepped in, laid the law down thick, and said that the War Office required every hosiery manufacturer in Leicester and district to make only for the Government. They did the right thing. The ordinary civilian must make his undergarments wear three months longer, or else do without. Every spindle and knitting frame is working at the same pressure as the spindles and looms in the West Riding. Now, everyone knows that next to one's skin one must have something soft, crossbred wools unless they be fine half-breds being altogether unsuitable for that purpose, consequently Merinos have been largely called upon, immense quantities being consumed every day. Here we have the prime cause for Merinos recovering as they have done. The ordinary home trade in coatings and serges is exceedingly quiet, but for the other things there is as keen a demand as ever, and therefore as long as spindles and knitting frames can be kept running as they are, Merinos will not suffer a great deal. Then, too, stocks are exceedingly light, and Bradford topmakers are in urgent need of replenishing. Of course, when big quantities of new-clip wools become available, to-day's values are not likely to be maintained, but in the meantime demand continues to be very extensive, and as far as one can see a record consumption is assured for Great Britain for the next six months.

The Outlook.

We must look at the future in a very different way from what we did even a month ago. What the trade is wanting to-day is a big supply of the raw material, and everyone knows at this end that owing to delayed shipping, high freights, and extra charges, the arrival of new-clip wool from Australia and New Zealand is going to be long delayed. As far as we can see to-day it will be next February before the present scarcity is remedied, and therefore everything shows that values are going to be well maintained, this year at least. Of course, to-day's level is a very high one for Merinos, and I cannot help saying that there is a good deal of the detestable about fine wools, the present high values being largely dictated by the absence of stocks, combined with the unparalleled demand for hosiery fabrics. I am still of the opinion that, given an adequate supply of the raw material, Merinos must come down, but whether they will again drop in the neighbourhood of 2s. 1d. for 64's tops is a problem. I cannot see them falling to that level this year, but one never knows. No one can reckon upon either Belgian or French spinners getting to work much again this year, for demoralisation is the only word that can adequately convey to the reader's idea the state of the textile trade of both Belgium and France. Germany is seeking wool in all the markets of the world, and the embargo was the only thing that the British Government could do. After such evidence of German "culture" as we have seen, we must take drastic steps to prevent the enemy from supplying her needs, and even though Australasian pastoralists have to make some personal sacrifice, what is that compared to losing one's liberty and freedom for ever? Cost what it will, the war party in Germany will have to be wiped from the face of the earth, and our liberty must be safeguarded at all costs. As we look forward to the coming months we certainly think good paying prices will prevail both for Merinos and crossbreds. So long as the war continues huge quantities of New Zealand crossbreds will be required, and therefore we confidently look ahead, believing that the world's wants will assert themselves so strongly that wool values for all qualities will not fall to an extremely low level. Merinos, I repeat,

cannot maintain to-day's level of values, but even when the war finishes trade is certain to continue to boom, and therefore I think that prices of a paying character to pastoralists will continue to rule during the coming months.

A Caterpillar Tractor.—As used for Heavy Transport in Western N.S.W.

Messrs. C. and S. Officer, of Kallara Station, Louth, Western New South Wales, are attempting, with considerable enterprise, to solve the problem of wool and freight haulage, which affects every station owner in this country of long distances, A.W.U.'s &c., and with this object they have imported from San Francisco a 75 h.p. "Caterpillar" motor tractor which has now made a number of severe trial trips. The last five of these were as follows:—

1. Bourke to Kallara, 113 miles, load hauled 18 tons (stores), time occupied 5 days.
2. Kallara to Bourke, 118 miles, 21½ tons (wool), 4½ days (5 miles extra run by mistake).
3. Bourke to Kallara, 113 miles, 18 tons and a 10 h.p. portable engine, 5 days.
4. Buckanbee and Curranyalpa Stations to Cobar, 113 miles, with 20 tons of wool. Particularly difficult road, time from Friday to Tuesday afternoon (probably 5 days).
5. Cobar to Kallara, via Louth, 131 miles, 20 tons, 6½ days.



"CATERPILLAR" ARRIVING AT BOURKE "SCOUR" WITH 21 TONS OF KALLARA WOOL.

Running costs have not yet been accurately worked out, but it is certain that a very great saving can be effected in road freights. As the roads were in the worst possible state owing to the drought, the tractor has done very remarkable work, and, moreover, has not given any trouble or caused a minute's delay. Sand, the bugbear of traction engines, motor lorries, and other forms of traction, is no obstacle to it. It carries enough water to last 200 miles, and enough fuel for 150 miles, the fuel being a mixture of naphthilite and kerosene, the former costing 1s. 3d. per gallon in Sydney. In the heat of summer it will run on kerosene alone, and on hard roads will haul 30 tons as easily as it has hauled 22 tons over very bad ones. It will average 5 miles an hour on ordinary fair roads.

The "Caterpillar" and waggons cost about £2000, and Messrs. Officer have formed a syndicate of station owners in the district to take over and run the machine, which will haul for shareholders only at present. Later on further importations may be made and the scheme enlarged to do carrying on a more general scale.



The forgoing pages are firstly, 2 pages from the Caterpillar Times which published a letter from an observer of the Holt in action, which prompted a letter from H.S. Officer who owned Kallara at the time, praising the Holts performance. Of particular interest is the top photo which shows a 10HP portable steam engine tacked on behind the 2 carriages with their 18 ½ Ton payload.

The last article is from the Pastoral Review on 16 December 1914, which summarises the Holts early trips and compares its use in varying conditions.

This sign was used by Holt from 1915.

This Tractor, No 2134 made in USA by the Holt Caterpillar Company. A 60Hp model was the first to arrive in Sydney, for evaluation, and No2134 arrived about 2 months later and was forwarded as a working tractor, Bourke where Hales Ltd, a Bourke Produce Store reported its arrival on the 15th of September 1914.

It arrived at Kallara Station on the afternoon of Friday the 26th of September, without a delay carrying 18 Tons of stores.

On September the 30th it left Kallara with 21 Tons of wool, which is pretty much where the Pastoral Review picked up the story.

It is also the point at which we will reluctantly bring an end to the story of the tractor which played a significant roll in introducing mechanical transport to Western New South Wales.

It is also time to thank Gary and Jeff for the effort that they have put into bring this tractor back to its former glory, and providing us with this story, and making it available at the forthcoming Caterpillar Rally on November 1 & 2 at Lake Goldsmith.



The Holt 75 had a significant history in the introduction of tracked transport which allowed vehicles to move over ground too soft for wheels. It also had a military roll in WW1 where it was used as a gun tractor,(see below) and it is thought to have inspired the invention of the tank. The history of the Holt 75 is an interesting subject in itself, and for us, Holt 75 No 2134 has a significant place in our national history. The Holt 60/75 tractor was produced from 1913 to 1924



THE CATERPILLAR 10 AUTO PATROL



Caterpillar 10 Auto Patrol Displayed and Restored Jeff Williamson

Jeff and Gary will also have their Caterpillar 10 Auto Patrol Grader at the Rally. This Grader was nearly complete when it was acquired from a farm near Condobolin in central N.S.W, Its earlier life had been at Wilberforce, which is West of Sydney on the Hawkesbury River.

It is powered by a Caterpillar 28 Petrol/Kero hand cranked motor. It was assembled by Waugh & Josephson in Sydney about 1936. The model was in production from 1933 to 1940.

The Grader design originated with Russel Graders who were absorbed into the Caterpillar Company, and some of the earlier design features remain on this Grader

Russel had been making Graders for some time, and earlier on built a tracked Grader which was based on a 2 Ton Holt as shown in the inset picture.

For anyone interested in the early history of these graders there is a book by:-

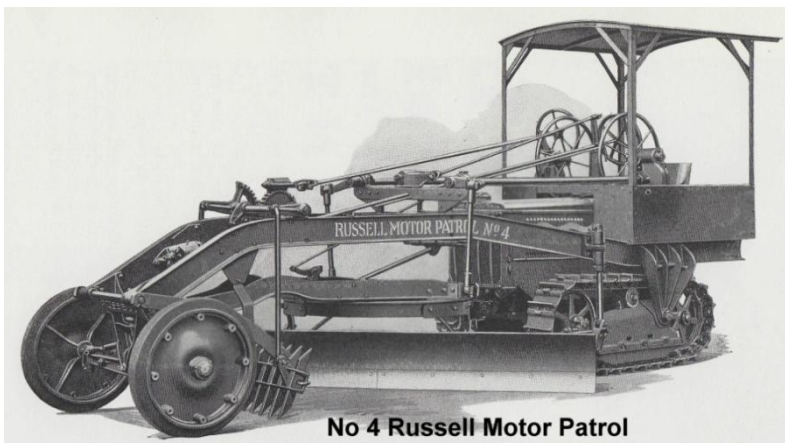
P.A. Letourneau:-

RUSSEL GRADERS

ISBN 1-882256-11-5

Which you may be able to pick up at the Rally.

The Holt 75 & the Cat 10 Grader will be taken to the Rally by Mark Hutchings courtesy of William Adams

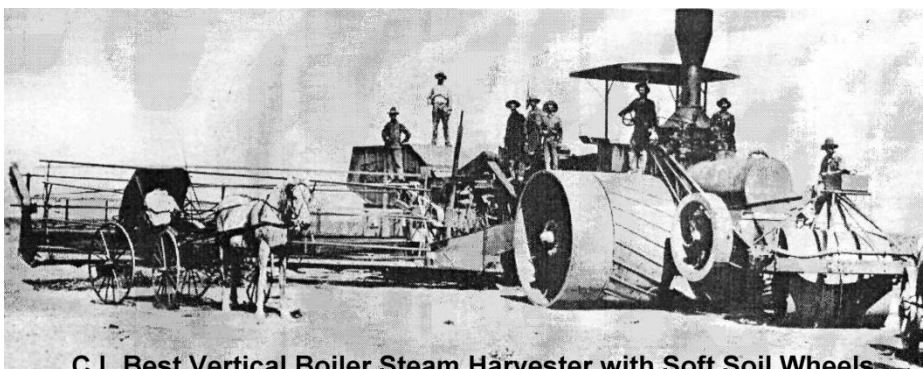


No 4 Russell Motor Patrol

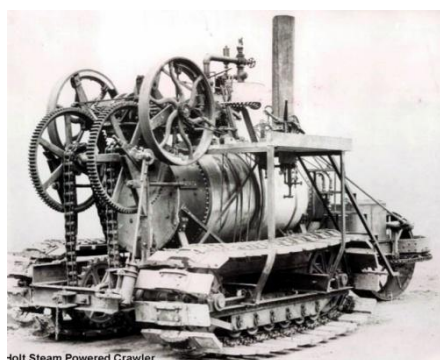
CATERPILLAR® BACKGROUND

The Holt Manufacturing Company from Stockton California, had maintained an Office in Martin Place in Sydney from about 1914, which meant that they had tractors on the ground in Australia from an early date, as confirmed by the forgoing Kallara Holt Story.

The other Company that merged with Holt in May 1925 to form the Caterpillar Tractor Company, was the C.L. Best Tractor Company. Both companies had a background in Rural Steam Traction manufacture and both had recognised the advantages of tracks as practical alternative



C.L. Best Vertical Boiler Steam Harvester with Soft Soil Wheels
to the extremely wide wheels that were necessary to work in soft ground. The Steam Power soon gave way to internal combustion and tricycle styled machines with single steerable front roller and independent half tracks at the rear. By the early 1920's fully tracked Tractors developed and the basic layout of the modern crawler tractor had arrived.



Holt Steam Powered Crawler



Holt T-35 T ton 1921 1922

WW1. Best was not involved in military contracts and concentrated on its traditional markets at home, which may be the reason that I have had a lot of trouble tracking down a Best Tractor to feature in this edition.

Both companies seem to have been affected by the sale of War Surplus tractors, and both were producing similar tractors that competed with each other. Amalgamation was a game changer, model ranges were rationalised, production increased, prices dropped and the company prospered.

By 1926 the Holt 2 Ton and Best 30 & 60 tractors survived as the Caterpillar mainstays.

BURBANKS
ADLAIDE
NEWCASTLE

PHONE : (0414) 351 1210
FAX : (0414) 351 1200
E-MAIL : info@burbanks.com.au

WILLIAM ADAMS & COMPANY
LIMITED

2-Ton Tractor

SPECIALLY DESIGNED TRACKS LAST FOR YEARS WITHOUT REPLACEMENT.
SPECIALLY SUITABLE FOR INDUSTRIAL AND FARM WORK.

LOW SPEED
ENGINE

OVERHEAD
CAM SHAFT.

OVERHEAD
VALVES

NO
DIFFERENTIAL
TO CAUSE
"SLIP"
ON TROUBLE.

THREE POINT
SUSPENSION.

TWO
THREE SPEEDS
AND
REVERSE.

GEAR DRIVEN
FAN.

DOUBLE AIR
CLEANERS.

TRACK
BRAKE

Illustration of a Ford of 40 Horse "Motortrucks" sold to U.S. Government (1918).

Some uses: The Chain Belting Road, George Limited, Clonagh, Slieve Donard, Belfast, Harrow, South, Adelaide,
Adelaide, Victoria, and England, South West,
New for Fuel Containers.

BRISBANE
cnr. Edward & Mary Sts.

NEWCASTLE
17 Bolton St.

WILLIAM ADAMS & COMPANY

LIMITED

No. 30



Tractor

SYDNEY Phone 4 & 7801 (2 lines)
MELBOURNE CANT 4882 (4 lines)
PERTH A 5164 (2 lines)

THE MOST POWERFUL AND ECONOMICAL TRACTOR OF ITS CLASS.
 SPECIALLY SUITABLE FOR ROAD CONSTRUCTION, DAM SINKING, AND SIMILAR WORK.

SLOW SPEED ENGINE.

OVERHEAD VALVE.

TRACE RELEASE.

THREE POINT HITCH POSITION.

CHURNED HEAT.



THREE SPEEDS AND REVERSE.

NO HOLDER IN RADIATOR.

GRASS DRIVEN FAN.

DOUBLE AIR CLEANER.

CANOPY.

SPECIALLY DESIGNED TRACTORS LAST FOR YEARS WITHOUT REPLACEMENTS.
 NO DIFFERENTIAL TO CAUSE SLIP OR TROUBLE.

Used by The Melbourne Board of Works, Mr. Diller, Kew (repeat order).

Write for Full Particulars.



SYDNEY 175 Clarence St
MELBOURNE 523 3 Collins St

PERTH 432 6 Murray St
ADELIDE 175 Waymouth St



WILLIAM ADAMS & COMPANY

LIMITED

SYDNEY Phone 8 7061 (3 Lines)
MELBOURNE - CWT 4262 (4 Lines)
PERTH - A 3126 (3 Lines)

No. 60 Tractor

THE IDEAL TRACTOR FOR TIMBER HAULAGE.

IT REDUCES COSTS.

IT REPLACES BULLOCK TEAMS.



RELIABLE
POWERFUL
DURABLE
ECONOMICAL

The result of over 40 years' experience in building TRACTORS.

The "Caterpillar" Company's slogan

—BETTER
—QUICKER
—CHEAPER

Let us refer you to Australian agents

MELBOURNE, 175 Clarence St
MELBOURNE, 521-3 Collins St

PERTH, 432-6 Murray St
ADELAIDE, 157 Waymouth St



1926 is also the year that William Adams became Agents for The Caterpillar Tractor Company. William Adams started in 1883 trading in Railway equipment. The company rapidly expanded its product line and developed engineering skills and expertise with construction equipment that remains with it today as its business concentrates on Caterpillar Sales and Service in Victoria and Tasmania.

William Adams is supporting the Caterpillar Rally at Lake Goldsmith on the 1st and 2nd of November 2014 with a display of vintage and new machinery.

The new equipment will depend on availability at the time. The vintage collection will include a Caterpillar 30 with a vintage draw Grader, and a Caterpillar D4. The 30 will be joined by John Kirkpatrick's 1928 2 Ton Caterpillar and Bob Addisons 60 to give an idea of the Caterpillars that were on offer from William Adams in 1926.

Caterpillar also have a lot of information on their history time lines at www.caterpillar.com and William Adams has a brief history at www.williamadams.com.au and a lot on its CAT product line.

A lot of books have been written about Caterpillar products and history and there will be a large selection on offer from vendors at the November Rally.

For those who do not have access to these sources I will try a brief rundown. From 1926 the 2 Ton continued until 1928 (by which time 8500 had been produced) when it was replaced by the Cat 10 and joined by the cat 15 and 20 in 1929 & 27. From 1938 to 1957 about 26400 D2's were built.

The Cat30 continued (with over 23000 made) until 1932, when the R and RD4 were produced as forerunners to the D4 in 1936 which lasted in basic form until 1959 (with over 94000 built)

The Cat 60 (with over 16500 produced) continued until 1931, and by 1935 had morphed into the D6 which stayed in production until 1959 when like the D4 it was modernised.

The RD7 started life in 1935 and became the D7 in 1940 with a total of 56500 built by 1955. The RD8 became the D8 in 1941 and 46500 had rolled of the production line by 1955 when they were upgraded.

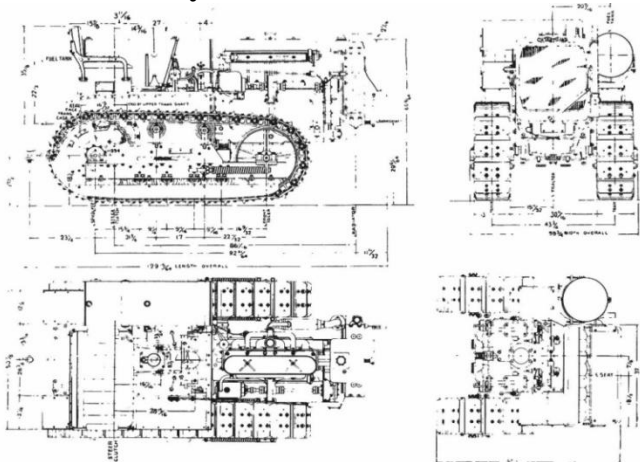
In Dec 1931 Caterpillar changed the colour scheme from Grey with red Trim to Yellow with black trim similar to what we see today.

In 1932 Caterpillar developed their D9900 Diesel engine, and Diesel engines were gradually added and by the end of the 1930's, they were available over entire tractor range. Neil Clydsdale will have a very rare Cat 60 which left the factory with one of these engines.

The model numbers gained prefixes R for Regular Gasoline and D for Diesel or RD were there were options. The improved economy and reliability of these tractors led to their rapid market acceptance.

The depression saw a move away from rural markets to civil construction during the 1930's to meet the needs of government new deal and other projects. Typically, Caterpillar produced the Tractor and outside companies produced the attachments such as bulldozer blades, winches, graders Track loaders and pipe layers.

By innovation and acquisition Caterpillar produced dedicated equipment with improved performance to meet these needs and from the 1950's the product range expanded into new markets and this trend continues today.



Eddie Bedwell has supplied this drawing of Caterpillar 30 and the C L Best 60 Tracklayer picture is a sample of what can be found on www.agriculture.com/machinery/tractors/antique-tractor/best-60

The 60 introduced oscillating track arms, a steering system which used enclosed multi-disc friction clutches on roller bearings. A substantial transmission allowed power to be applied to each track when turning. These tractors only changed their name and colour after the merger and Best lead the new company until 1951.

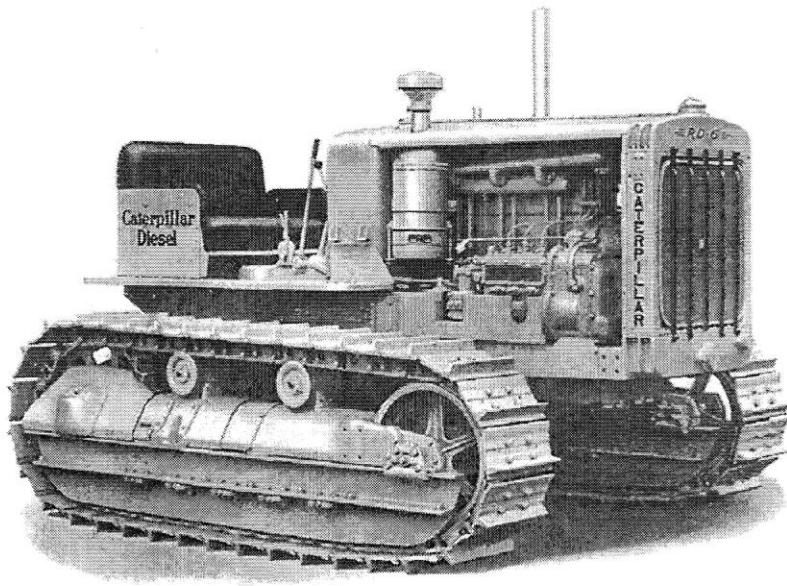
William Adams Catalogue Extracts

William Adams have provided a specification comparison between an RD6 and a D6T, and a selection items from an early catalogue. The catalogues include some Caterpillar equipment, and Sentinel Trains, and an SENTINEL S\$ Steam Wagon (Further on in the Gazette Sentinel features in 2 Steam Wagons that are back in steam)

Let's Start with the D6's on the next page!

Then and now –

Comparing 1935 Caterpillar RD6 tractor and 2014 Caterpillar D6T tractor



	1935 - RD6	2014 - D6T
Weight	6,900 kg	24,000 kg
Track Guages	1320mm & 1880mm	1880mm, 2032mm, 2134mm & 2286mm
Engine model	D6600	C9.3 ACERT
Flywheel horsepower	52 Hp	207 Hp
Cylinders – Bore and stroke	3 @ 146mm x 203mm	6 @ 115mm x 149mm
Displacement	10.8 litre	9.3 litre
RPM	850 RPM	2000 RPM
Fuel tank capacity	170 litres	411 litres



SENTINEL STEAM — WAGGONS

SHAFT DRIVEN — PNEUMATIC TYRED



One of a Fleet of S.4 Tipplers in the service of a famous British firm of Contractors.

Steam has long been recognised as the most reliable motive power — and with the many remarkable improvements now embodied in the Sentinel Steam Engine and Boiler it can be safely said that no more efficient and reliable power plant for road vehicles exists to-day.

Notable features of these modern units are their lightness, simplicity and efficiency. For example, the 4-cylinder engine, which develops 120 brake horse-power on a steam consumption of 14 lbs. per B.H.P. per hour, weighs only 1,000 lbs.

PRICES AND FULL PARTICULARS ON REQUEST

SOLE AGENTS IN AUSTRALIA.

Owing to constant fluctuation in costs, prices shown herein are subject to change without notice.

Another page from William Adams Catalogue will have some relevance when Andrew Johnson takes his Super Sentinel for a run around the Arena at the Rally Grounds in November

William Adams



ANTIQUE CATERPILLAR MACHINERY OWNERS CLUB

A 15 page coverage of Holt, Best and Caterpillar history is available on the Antique Caterpillar Machinery Owners Clubs website:- www.acmoc.org This organisation has a lot of information from paint colour codes to model identification. There are 2 chapters of this club in Australia, chapter 18 in Queensland (email Lance Jones at chapter18@acmoc.org) and chapter 19 in South East Australia (email Neil Clydsdale at chapter19@acmoc.org).

Neil is based at Corryong (East of Albury on the Murray River) and together with Greg Hellier will be displaying some early rare Caterpillar 60 tractors and an Auto Patrol grader at the November Rally. Neil will also be waving the ACMOC banner to attract owners of vintage Holt, Best and Caterpillar machinery to the local chapter of ACMOC. Neil also has a feature in the current edition of William Adams Plus magazine.

LAKE GOLDSMITH'S RESIDENT CATERPILLARS **CATERPILLAR® D4D BULLDOZER**



This Caterpillar® D4D Bulldozer was built in 1964, and unlike the earlier models mentioned further on, it is a direct electric start. This Dozer has a Bull tilt blade. Rod Jones has used this machine at the Rally Grounds for many years, where it has prepared and compacted many shed floors with the sheep's foot roller parked nearby.

CATERPILLAR® 112F GRADER



This Caterpillar® 112F Grader was made in 1968 and was first used by the Shite of Nathalia (now part of Moira) for road maintenance. Like the D4D above it has spent many years at Lake Goldsmith, where in conjunction with the Hough Loader it has prepared and maintained most of the gravel roads around the site. The Cabin was made in Ararat by Gason.

JAMIE AND MARK HUTCHINGS CAT® COLLECTION

Jamie and Mark are operators and collectors of Caterpillar® Machinery and have had a long association with the marque. They have various machines on site, and some extras will be along for the Rally, some of which will be highlighted on the following pages.



Jamie & Mark Hutchings 12H Caterpillar Grader at

Another familiar sight at the Rally grounds and around the district is this Caterpillar® 12H articulated Motor Grader which is used, mainly, for road construction and maintenance.

This Grader weighs in at about 14.5 Tonnes and has a top Road speed of near 25 MPH. The Engine is a Caterpillar® 3306 Turbocharged 6 cylinder 4 stroke Diesel, typically with a 140/165 HP at 2000 RPM. (subject to engine power management) The cylinders have a bore of 4.75" with a 6" stroke and have replaceable wet liners.

The Powershift Transmission has 8 forward and 6 reverse speeds.

The Service Brakes are air operated sealed, oil disc units which are lubricated and cooled by the Tandem Housing oil. The Parking Brake is a spring engaged, multiple oil disc unit on the output shaft of the Transmission

The Grader is just shy of 28' (6450mm) long and the Blade is 12' (3658mm) (for those who like to see a lot of paper used))

When compared to the collectable machines these ergonomic, powerful and reliable machines must seem like a dream to plant operators of old.

CATERPILLAR® 22

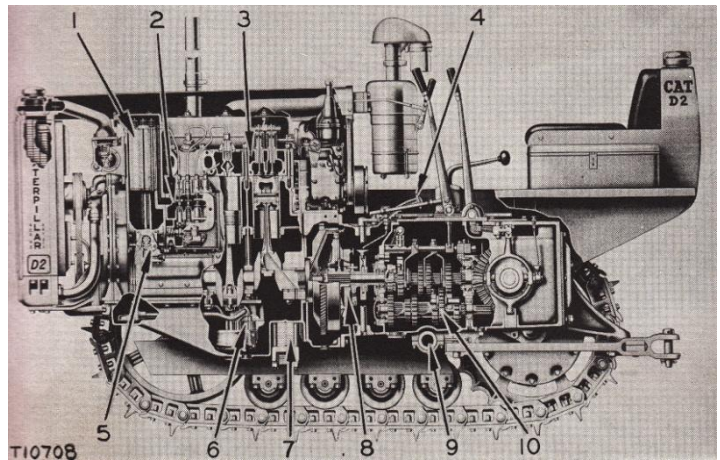
Slipping back in time, Marks first Caterpillar restoration project was a Caterpillar 22. These Tractors were produced from 1934 to 1939 at the company's Peoria works in Illinois.

This 4 cylinder gasoline powered tractor weighs in at 6200 pounds (about 3 Tons) for the narrow gauge model and had 25 Drawbar HP, and 30 on the belt, at an engine speed of 1250 RPM. The engine bore and stroke were 4" * 5" with a displacement of 250Cu Inches. The tracks are 10" wide with a track gauge (centre to centre distance between tracks) of 40 or 50 inches.



CATERPILLAR® D2

The August edition featured a D2 Tractor and a D2 Dozer owned by David and Ian Smith who operate the EMU CREEK SAWMILL at the Lake Goldsmith Rally grounds. Their machines will be on display at the Rally, as will Marks machine below on the left is a D2 from 1971. The sectioned drawing of an early D2 is on the right.

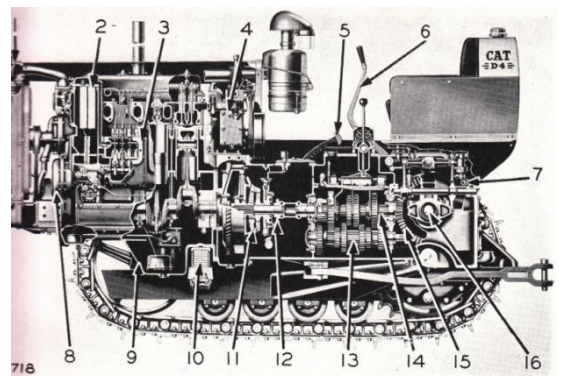


CATERPILLAR® D4

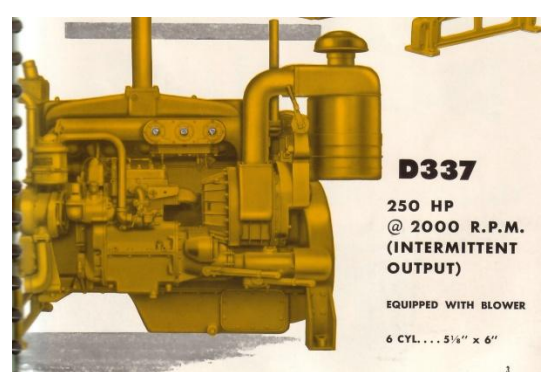
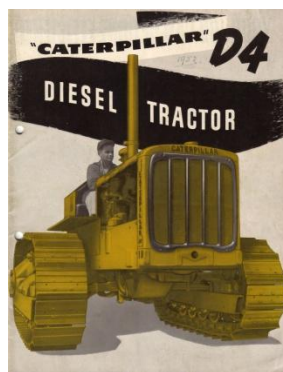
The Best/Cat 30,R4, D4, Rd4, D4 series of Tractors has been extremely popular from its inception in 1919, and in developed form this still continues today. It has also been the base tractor for such specialised variants such as Traxcavators and Pipelayers. The tractor below which was restored by Mark and Jamie Hutchings, is a Caterpillar D4 6U2044 and it was manufactured in 1946. Originally this tractor was operated in the Beaufort area by Mick



Larkens building and cleaning dams and general contracting work. The drawing is a section view of a D4 supplied by Eddie Bedwell, as are the D4 & D337 Promo material



The D4 dozer below is fitted with an angle blade and winch and is still used occasionally



The D337 engine will be on William Adams display, unusually it is supercharged with a Rootes blower.

CATERPILLAR® RD7

The RD 7 Tractor was manufactured from 1935 to 1940. The 4 cylinder diesel motor is warmed up and started by a twin cylinder inline petrol motor, which is started by hand using a crank handle which engages a shaft under the radiator. This starter has its own clutch and gearbox which are engaged by the levers on top of the box.



CATERPILLAR® D8-V8 SPECIAL

Every now and then an opportunity comes along that is too hard to resist, no matter how much work is involved. In this case Mark had a 1942 D8 with a very tired non original motor and a lonely CAT D17000 200HP V8 from 1946. The tractor is an ex military WW2 machines stamped US7 indicating that it had been part of the US Seventh Fleet in the Pacific.

Not a lot is known about the D8, Bob Addison picked it up at a clearing sale West of Arrarat and passed it on to Mark. The D17000 was made from 1938 to the mid 1950's. It was good for 200HP at 850 RPM. It originally powered a generator in an electric LIMA Crane, and ended up as a standby Generator at Fletcher Jones in Warnambool.



The motor is started with a horizontally opposed twin cylinder petrol motor which on this model has its own electric starter. This is an impressive machine and worth a look if you get a chance at the November Rally

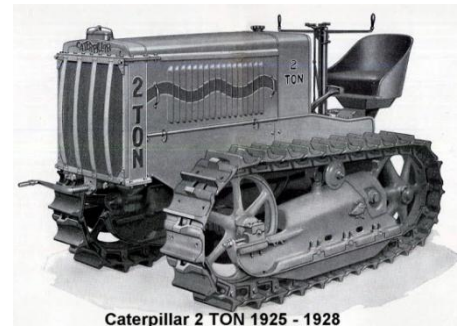
John Kirkpatrick Caterpillar® 2 Ton

These tractors started as the Holt T-35 and became the Caterpillar 2 TON in 1925 and was manufactured until 1928. Nearly 9000 were built in 2 engine sizes. Both bores were 4" and the stroke was 5" or 5.5" (251 ci & 276.5 ci) and the draw bar hp was 15 or 18 and the belt hp was 25 or 25.5).

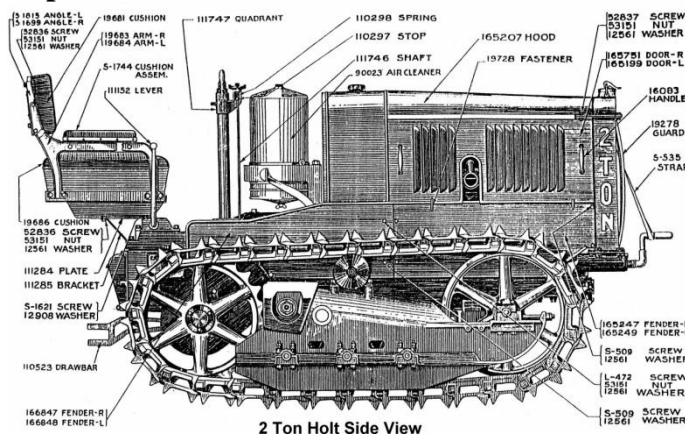
These tractors had a very advanced engine design for the early 1920's with a centrally mounted gear driven overhead camshaft, hemispherical combustion chambers, and a cross flow head. It was fitted with 2 stage air cleaning, a cyclone separator and an oil bath horsetail container that could be flushed regularly with kerosene.

The steering clutches are oil cooled/lubricated multi steel discs, and the 3 speed gearbox is a transaxle arrangement that projects from the rear of the tractor and supports the belt pulley.

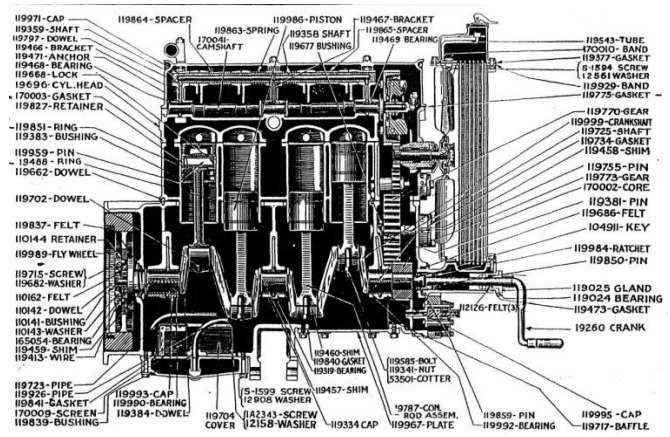
John's Caterpillar® 2 TON was manufactured in 1927. This tractor is offsite for some pre-rally attention and was not available for photographs. It will be in shed 5 in Marshall Avenue and it will be beside John's D2 which has been in his family since 1946 when it arrived as part of the first post war shipment.



Caterpillar 2 TON 1925 - 1928



2 Ton Holt Side View



These drawings appear to have been taken from a spare parts book for a Holt styled 2 Ton if my memory of the armchair seat is correct, it seems to be the only major change at some point, near or soon after the transition. John's tractor has the round back steel seat seen in the first photo.

The overhead camshaft can be seen in the engine section, interestingly there are only 4 cams. The inlet and exhaust valve rockers pivoted on separate rocker shafts, and the cam followers offset beyond the centreline to achieve the required timing. I was hoping to find a cylinder cross section drawing, but I had no luck.

BOB ADDISONS BEST 60 TRACKLAYER

Back on page 14 I said that I had had a lot of trouble finding a BEST tractor. It turned out that we have one on our doorstep in Beaufort.

Bob Addison acquired this tractor on a trip to USA about 8 years ago. The tractor is a Best 60 Tracklayer which appears to have been made very close to the transition when Holt and C L Best were reformed as Caterpillar. When Bob brought it, the damaged radiator side castings had part of the Best name remaining. The radiator was replaced by a Caterpillar unit to make the tractor operable. Similarly, the motor believed to have been replaced by a later unit at some time in its near 90 year life.



Best 60 Cat Bob Addison Beaufort Sept 2014

is

This Tractor is an impressive machine and had a production life of about 12 years starting in 1919 as C L Best and ending in 1931 under Caterpillar. During this period over 18900 60's were produced at the companies San Leandro California (A series) and Peoria Illinois (PA series) plants. The 4 cylinder overhead valve motor seems massive for 70+ Horse Power, but this power is achieved at a low 650 RPM.



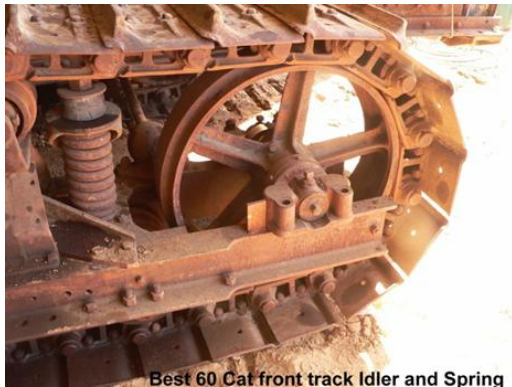
Best 60 Cat Motor, Bob Addison Beaufort

Power at the belt was 60HP with 35 at the Drawbar providing a pull of about 12300 pound. The Tractor weighed in at around 20500 pounds or 9300 KG

The engine had a 6 ½" bore and an 8 ½" stroke for a displacement of 1120 Cu Inches (about 18 ½L)

An Eisemann impulse magneto provided the spark, a petrol priming cup was fitted at each end of the inlet manifold, and each cylinder had a decompression valve which was linked by a lever system for

convenient operation. This was a good combination for an engine that was started by inserting a 1" bar about 3' long in one of the safe release holes in the outer rim of the flywheel.



Best 60 Cat front track Idler and Spring

These holes can be seen in one of the attached photos. The engine has a pressurised oil system except for the valve rockers which are oiled from cups visible above the valve rocker covers. The early tractors had 2 forward speeds, but a third was soon introduced. The turning clutches have multiple dry plates, and brakes are fitted to each tracks.

The suspension is 3 point with the fixed drive sprockets at the rear, and an equaliser beam attaches under the tractor engine, and sits on a coil spring forward along each pivoting track frame.

These tractors were used for farming and construction drawing ploughs and equipment. Later models could be fitted with cable operated front mounted blades for direct dozing.

The Caterpillar 60 earned itself an enviable reputation as a reliable and durable tractor that seemed to perform better than the sum of its parts would suggest.

This tractor has received a lot of attention in its lead up to the Caterpillar Rally. Bob has quite a collection of Caterpillar equipment, some of which will join the 60 on Rally day.

As an aside to Bob's story, a quote from Caterpillars time line concerned Smithy's Southern Cross Fokker Triplane when it took off from California on its epic first flight across the Pacific Ocean. A Cat 60 towed the fully loaded plane to the take off point.

The photo on the right (a net download) gives some idea of what Bob's 60 looked like before the radiator was damaged Thanks Bob for the story on this rare piece of crawler history.



Best 60 Cat Flywheel showing easy release starter bar holes



BEST 60 CATCarburetor and half-compression levers



MSTEC CATERPILLAR SECTIONED D4 MOTOR



MSTEC Cat D4 sectioned motor

Melbourne Steam Traction Engine Club have sectioned D4 Motor amongst their collection. It thought that this display is one of a set of factory prepared demonstration units. It was donated to MSTEC by William Adams.



MSTEC D4 engine

a
is

Ross & Jo Lloyd will be bringing this display to the November Rally, and hopefully it will be displayed near the William Adams display.

MODIFIED SPECIAL PURPOSE CATERPILLAR TRACTORS

From time to time Caterpillar tractors have been modified for special purposes or for use in extreme conditions. These vary from production runs where tractors are modified for say pipe laying, to limited runs or one-off machines built by machine owners.

An interesting special was made in New Zealand

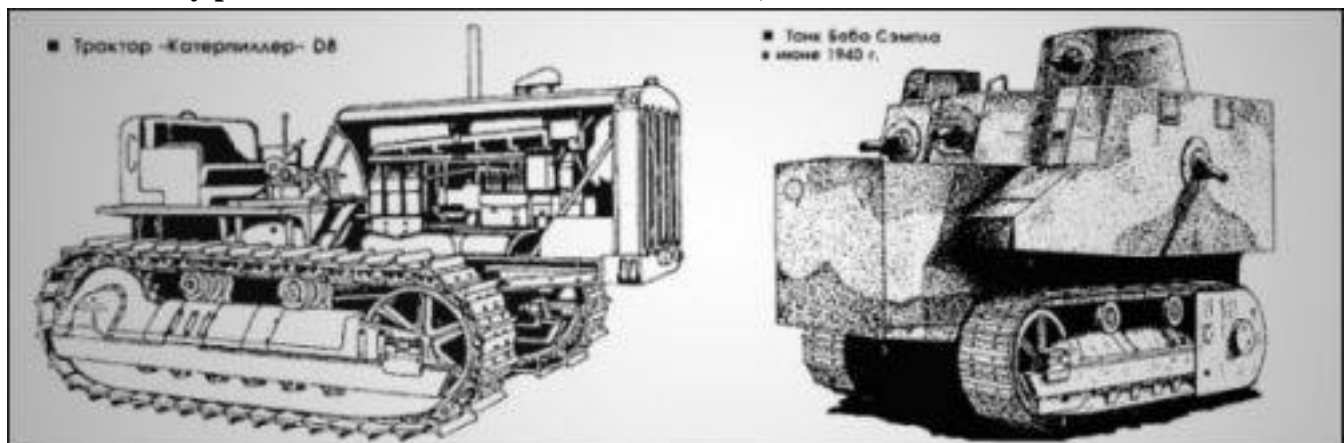
At the outbreak of world War 2 Australia and New Zealand did not have any home grown Tanks, and there was concern that they could be difficult to source from overseas. Both developed prototype models, neither went into production or saw action during the War.

The New Zealand Tank is of interest here as it was based on the Caterpillar D8 which was in reasonable supply at the time.

The Tank was the brainchild of a politician Bob Semple, and hence became known as the Semple Tank. The Ideas was to fabricate an armoured cabin with positions for machine guns at various locations around the Hull. These cabins would be left at various locations around the country, and if they were needed they would be attached to local D8 tractors for which they were designed.

Prototypes were constructed and paraded around. Field tests showed them to be too slow and top heavy for combat. They were really mobile machine gun posts for engaging infantry as their armour was to light for even light canon fire. However they looked the part, and boosted morale.

Fortunately production line Tanks became available, and the D8 based machine was not needed.



There is a lot of information available on the internet, and there is movie clip of the Tank in mud trials. It is worth a look. Just Google Bob Semple tank and select what you want

It would appear that a more serious version was considered as the photos below show an extended front idler pulley which required some tractor modifications. These photos have been reproduced with the permission of the Christchurch City Library.

The above drawing show early production sketches.



Some views of the the Bob Semple Tank with the modified track gear.



PIPE LAYING

These pipe layers provide an effective way of laying long welded lengths of pipe in trenches



Pipelaying in Pennsylvania USA



Nose Down Pipelaying in Russia

and always look spectacular, particularly when things do not go to plan.
If you Google pipe laying Accidents you can get a YouTube clip of these line dancing Machines.

Continued on Part 2 return to Magazine Tab and open 129B or go direct using link
(http://lakegoldsmithsteamrally.org.au/downloads/GoldsmithGazette_129B.pdf)