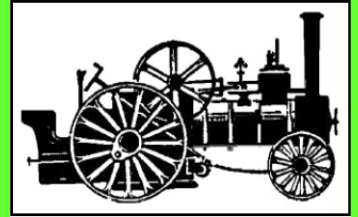


Issue 658 November 2025

A Wisp of

STEAM SUPREME

Extracts from the Melbourne Steam Traction Engine Club's Newsletter



Helping Hands



Relaying the Station Yard



What Preservation is Really About



Starting Big Ronnies

When You Need A Helping Hand

When your arms grow weak and your back is not as strong, you often need a helping hand to get things done.

The journey started over twelve months ago, just after work started on the renovation of the clubs steam shovel, no longer able to work on site, I was however quite happy to work on any small parts for the project. This quickly led to the manufacture of a number of new valve rods and small shafts needed on the various engines, currently worked on by Laurie Hall.

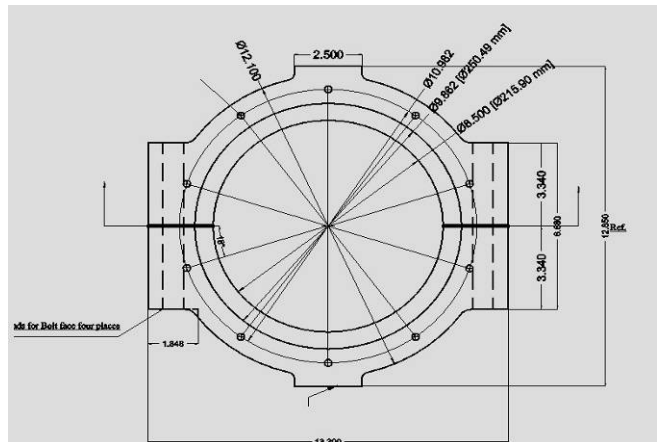
All was well until one day I was presented with the part labelled Part A in the pictures, what is this I asked, to be informed it was a broken part, of some Clamp Ringy Thing, that fitted to a shaft sticking up from the middle of the track unit. My immediate reaction being it looks too big and complicated for me, can't you find someone else that may work for free, everyone knows Else he is everywhere doing something else.

When no one stepped forward, I invariably offered my usual terms and conditions, I will have a go for free, however all care and no responsibility and the club pays for all materials.

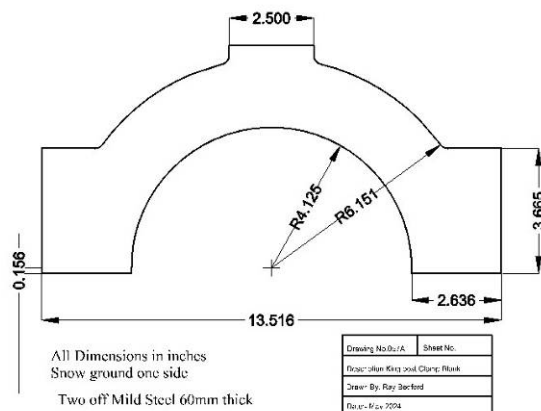
Now the real journey began.



Part A This is one of the broken parts used to extrapolate some of the dimensions, fortunately Rohan Lamb volunteered to climb on the beast and measure some of the crucial dimensions.



Now it was time to arrive at a design and choose a suitable material. Cast iron was considered, however for a one off part, the cost of a pattern and then the casting for a one off part would be expensive, then it was decided something a little stronger may be the way to go.



It was decided that flame cut steel would be the way to go.

Left is the basic drawing sent to Bob Haslam Engineering in Bayswater, to be cut and snow ground on one side as a datum face.

On visiting I was hoping to catch up with Bob himself only to find he had passed away some two years ago. Bob and I go back a long way to a time when he was a chief machinist working for D.W.S engineering in Vermont, making all manner of machine parts for one of our building programs.

When Bob finally branched out on his own we continued to have Bob make all manner of parts including crankshafts and cams, just to name a few.

Everything that came from Bob Haslam passed inspection every time

THE HELPING HAND

Once the work began the first operation was to remove the vice from the mill. I then realized I could no longer lift it. Now what, maybe a Sky Hook readily available from a number of dealers but rather large and very expensive. On a Visit to Keebles to procure some parts for another project I spotted the little winch, yes it is pink, sold as a fund raiser for the Anti-Cancer foundation. Along with my pink winch and other parts, an idea was forming.

The Helping Hand Idea was born
Some refugee tube from under the shed provided the basis followed by all manner of pins bushes etc. You may question all the holes, the only purpose is to reduce the weight, it needs to be as light as possible or it defeats the purpose.

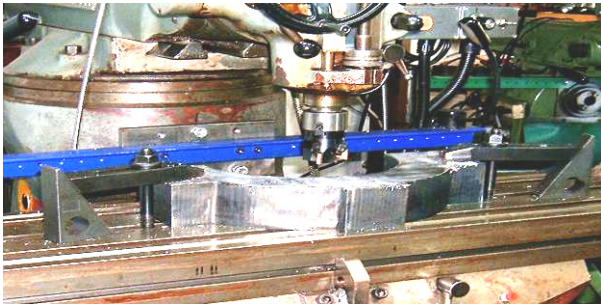


The Real Helping hand

The first use of Helping Hand to remove mill vice, assisted by John Meade .

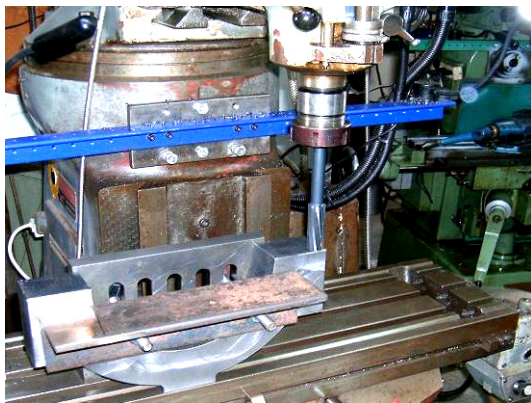
Huge sigh of relief, it worked, with no broken toes or other injuries.

This device will have multiple uses around the workshop as will be seen further in this document



The first operation was to deck the material down to the correct thickness, unfortunately we were just over one size and a considerable amount under the next. A little slow on a light duty mill, just needed patience and a little protection from hot chips.

A tricky operation was squaring up and levelling the corresponding mating surfaces to arrive at the center, enabling both half's to be joined at the center point

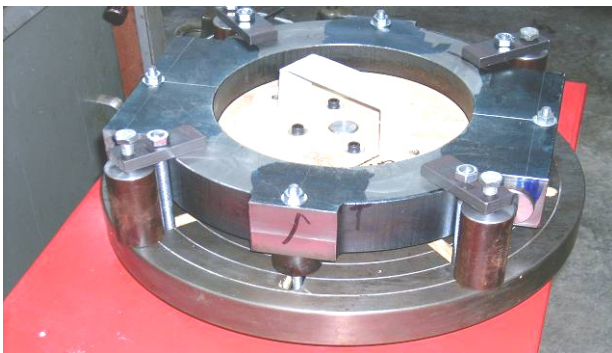


Almost a disaster :-

While drilling and reaming the holes required to clamp the two halves together, my brand new reamer got caught on swarf about half way down the first hole, a few blue words later, I managed to extract the bits and continued with plan B. This involves some special sharpening of a drill, to enable it to perform much like reamer.

Success holes done ready to assemble both halves.

More stress, wondering if the holes would align and everything would come square, relief it fit together



Now For some of the fun part.

Once the halves were assembled it required mounting to the lathe face plate. Not only did it require precise spacers to allow for tool access, it needed to be perfectly aligned with the center of the face plate. This hopefully enabled it to run true once in the lathe, as I did not believe I could achieve this in the lathe due to the weight. To attach it required lots of T nuts, and all manner of bolts and spacers to be made. Note the extra projection was also designed to take a couple of the mounting bolts



Turning almost done, time to relax a little.



Job done with the two helping hands. A big thanks to John Meade for supporting me through this project



The final part, drilling and tapping to fit the wear strips. These parts were water jet cut by Waterjet Solutions Bayswater. These parts were a perfect fit including the mounting holes. It is great to see modern technology also providing the helping hand we need to restore some of this old machinery.

Warwick has already provided the end to this story by installing it to the King post, and to my great surprise it fitted.

Ray Bedford

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“Forces of Nature”- Natural Caulking

Members may have noticed that the “Steam-Matic” 10HP boiler in Shed 6 has been “roped off” for some little time after it was dismantled for its last regular boiler inspection.

This was because a tube was found to be weeping water where it exited the tube plate at the discharge to flue end of its gas pass. (these boilers are a two gas pass configuration – the gasses pass through the main larger flue tube and return through the smaller (2inch) boiler tubes, before exiting the boiler via the stack.) The boiler has been dismantled longer than normal as various differing thoughts were considered as to how this weeping leak could be rectified? The tube did **not** need replacing – it was just weeping where it had been expanded into the tube plate. Several suggestions were put out there -re-expanding the tube, maybe TIG welding around it, but our “senior” boiler repair “Guru” was asked for his thoughts and his answer was to caulk the plate around the tube. Last Monday we duly arrived with tools in hand to carry out this procedure so the boiler could be re-assembled ready for operations once again.

The boiler needed to be filled with sufficient water to “weep” again so that as the caulking would close up the leaking area. We believed that the water level needed to be just showing in the gauge glass as that would provide enough “head” for the leak to re-occur.” we did so and guess what **no leak!** It had been a little while since the leak was last observed.(some months) so obviously the “**forces of nature**” had done the job for us? Rust can be a wonderful thing in the right place. Best to leave well enough alone!

Will the tube leak in the future? Highly unlikely – two reasons: firstly as the boiler is once again brought back up to pressure in future operations, the tube and tubeplate will both expand due to the co-efficient of expansion of metals and will probably “force” the joint to be tighter; and secondly the correct use of water treatment should put a fine layer of rust prevention around the area protecting all of the associated metal components for the foreseeable future. By the way newly constructed boilers often leak around various joints but with use “take up” and run successfully for many decades.

Roy Odgers text and photo

← **Hayden’s boiler back together and ready to run**

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STOP PRESS !

Just heard about a new English publication to replace the recently Folded Stationary Engine Magazine .

Written by a couple of young enthusiasts giving it a go .

Six issues a year packed with rich and in depth historical articles , technical reports and readers contributions .See web site for their special subscriptions for Australia starting with issue 6

The Old Oil & Gas Engines Magazine



FROM a FRESH SET of EYES



Relative new member to our club is Matt Bolin , being an observant fellow and a keen photographer here are some snaps he took of going - ons around the club.

It is worth pondering (think deeply and consider carefully) over them and what is going on to better understand what the club is really about and how we can make it a better experience for members and visitors after all our future depends on us continuing to be a major attraction !

At The National Steam and traction museum we have a range of industrial preservation projects we work on and showcase to the public. This takes place at the end of every month with a RunDay and SteamFest our annual event where we get all our engines and industrial machines working thus putting on a wonderful display.

← *Here we see Flynn , one of our*

younger volunteers preparing a 19th Century traction engine for a days demonstration to our public It is similar to Trevor in Thomas the Tank Engine series.

At the RunDay on the last Sunday of every month we welcome the opportunity for families to unite and work on a project together.

Koby with his father working on this 19th century industrial engine →

This is the type used in many factories during the height of the gold rush era.



The best way to steer ourselves into the future is to drive our youth through the past, like these schoolboys who present great potential to the future of innovation and industrial automation.

← *Hamish & Xhen Learning the functions of this vintage tractor dating from back to Federation.*

The National Steam and Taction Museum is not only highly mechanical it's also whimsical! →

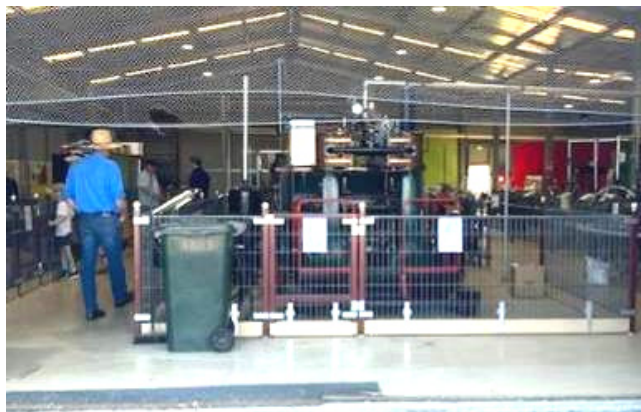
We see our volunteer John Wolf , operating an early German music machine.

Long before pro tools (a computer program that enables you to make artificial music) existed this was the best way to synthesise and engineer the next biggest hit.

Actually by trade John was a top Instrument Maker who worked with Warwick , in Experimental Engineering at GMH . That was many years ago when we had a car industry that could design and make some of the best cars in the world .

Now for our mechanical hits we need to revert to antique machinery , how sad that this was let happen Editor





At the National Steam and Traction Museum our sheds are full of some of Australia and the world's oldest technological innovations. These were the bedrock of the industrial revolution. The machines dramatically shifted the way the western world operated day to day. By the second half of the 20th century a number of these machines began to become outdated, and the methods of production began to shift away from analogue steam methods. Many of the smokestack chimney and Victorian era factories located around the inner city began to close or move to the edge of suburbia into new modernised factories. Some shut up shop altogether and never returned to Australia again. This shift in dynamics is what triggered the spark to create a museum to preserve these old machines, rather than send them to the smelter they were located to this community hub in Scoresby for preservation and education on this generation's way of life. With many hard-working volunteers committed to this cause and national recognition this museum has succeeded in its mission.

← ***Ollie & Arki? Nephews of long standing John Mills have recently become involved. Seen making adjustments to a working model of Hero's steam turbine first described over 2000 years ago.***

Preservation is a process though not guaranteed perpetuity so without public awareness via events like steam fest and membership number drives, the capacity to conserve our local heritage erodes. The decisions we make today determine whether we are a part of tomorrow. So, I encourage you to experience the national steam and traction museum. It's history in the making.

Matt Bolin photos and text

Matt is very interested in getting involved with our little train, can someone please take him under their wing and harness his energy? Ed.



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Better Fun than the Footy

Richard Beard on the Grand Final weekend using his Caterpillar excavator to load removed spoil into Peter's Euclid, for use elsewhere around site. In all 3 loads were removed



Continued

Better Fun than the Footy *Aaron Morris writes* ***With the recent roller doors fitted to the rail shed the next task was to level as much of the external siding area as possible effectively finishing the Western rail realignment.***

As this required removal of a number of track panels, the Grand Final public holiday was utilised to minimise disruptions so the train could run the following Sunday as normal.

Thursday.

The regular rail group removed track panels on Thursday so to be ready for the earthmoving team on Friday, the Grand Final holiday.

Friday.

Siding area was trimmed and levelled by Richard Beard using his caterpillar excavator.

← Aaron Morris, using his laser level, was marking area feeding lines in spray paint showing where to skim more off. The round marker paint circles indicate areas at the correct level.

In all Peter Morris carried away 3 Euclid loads of spoil (opening pic)

The level was then reset and used to help spread asphalt millings to the correct height.



← Peter Morris used the clubs McDonald roller to compact the area before and after asphalt was spread. In all it took 2 1/2 Euclid loads of asphalt millings to bring the siding area up to level with Richard giving it a final trim.

Like most things the task took longer than thought. Works started on the siding area at 8:30 finishing at 5 in afternoon, but better fun than footy



Saturday Laurie Hall and Noel Warden re-laid all removed track panels.

The fence was put back in place in the afternoon meaning the track was ready for Sunday trains which happened to be RunDay

Saturday Afternoon showing the new siding area in front of the recently fitted roller door. Photos and words thanks to Aaron Morris



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A NEW MAGAZINE FOCUSING ON HISTORIC MACHINERY

Exciting News

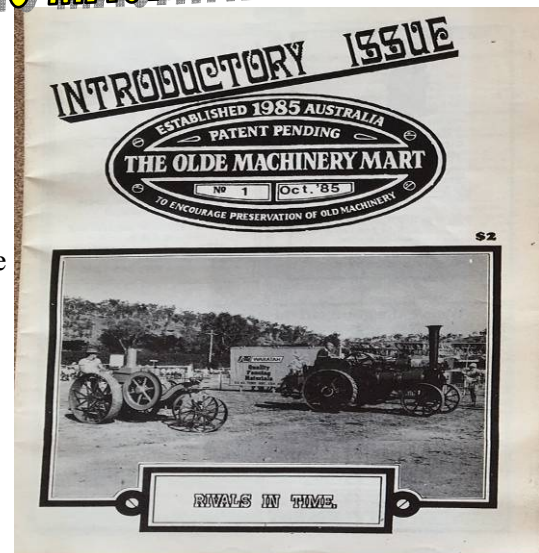
There is a big push to establish a new historic machinery magazine

It is becoming apparent that an existing long term publication, started in 1985, has folded after nearly 240 issues.

Issue No 1 of TOMM published by Ian J. Stewart, Townsville Qld →

Its demise is a great shame as it was a top quality product. I actually became a subscriber at issue number 6 and was so impressed that I managed to obtain all the back issues at one of the last Wantirna Rallies so have the whole lot. It seems they may have been defeated by technical issues that they could not overcome when in the process of going digital. What a terrible shame.

Ironically reading the letters section of issue number 1 there is a lot of talk about the need for a magazine and the difficulties in establishing a local one over the years and goes on to describe how Ian Berry of Ballarat had a go in 1972 but it never got off the ground. Eric Shultz and his brother had more success with 11 issues but it got too much work and they could not get anyone to take it over..



Following the 1985 MSTEC rally members Ray Gillett and Peter Zerbe got well along the way to bringing out their own magazine but discovered Ian Stewart was treading a similar path. Not being room for 2 new publications at the same time they got together and gave Ian their full support and here we are 40 years later. Certainly a great achievement Acknowledgement TOMM No 1

However we are back at the start again without a magazine. We are told that the umbrella organization The National Historic Machinery Association rightly believes that it is very important that we have a magazine that focuses on the restoration and preservation movement. As an indication of the NHMA's commitment, they have announced they will be sponsoring and supporting the initial development and publication of the new magazine.

It will be called Historic & Vintage Machinery Australia ("H&VMA"). The magazines publisher / editor is a very experienced professional on publications relating to our interest and in fact many of us have had previous dealings with her so that it is definitely going to hit the ground running.

I am lead to believe in the initial stage, up to 6 electronic editions of the publication in a PDF format will be free to NHMA clubs, their members and interested parties. The MSTEC is not actually a NHMA member but are definitely an interested party. When the magazine is operating in its own right, any subscriptions and required charges can be arranged directly with the publisher.

The NHMA understands this type of magazine relies on content sourced from people in the restoration and preservation community and points out it will need to be supported by articles and information from readers which would be of interest to other readers. Because the historic machinery interest in Australia is so diverse the range of topics can be very wide. It may be about a restoration project, some local history, an unusual item, or perhaps a request for information on a related subject.

The NHMA expects it will become a regular contributor with news, safety information, and a particular focus on our junior membership. They then go on to suggest clubs might be prepared to share articles from their own club magazine.



WILLANS AIR-BLAST DIESEL ENGINE - PART 3

Actually MSTEC has been doing this sort of thing for many years and found it a very successful formula that benefits everybody. For example we have a close working relationship with Old Glory's technical Editor Derek Rayner who uses stories from Steam Supreme a couple of times a year, always with permission and full acknowledgement. Then there was the English Stationary Engine Magazine, recently wound down with the retirement of their Editor, Warwick kept them well supplied with technical articles for over 30 years, all of which you first saw in SS.

On the local scene was TOMM with major multi part articles from Steam Supreme including the Lyttelton rescue, BigFoot restoration and the Willans saga as well as Chris's recent

run down on our rally. To this extent we are already well known to the new team! Warwick Bryce, Editor Steam Supreme.

To facilitate the new magazine the NHMA has appointed a liaison person to receive subscriptions and articles, etc. The contact email is editor.nhma@gmail.com

Please send your articles to the this email address. Also supscription requests from individuals should use this contact email. It would be appreciated if clubs could pass this information on to their members. Acknolagement NHMA

Please support us in the creation of this very worthwhile project for further information or assistance contact Allan Wheaton, Magazine NHMA Liaison 0408 899 775



The last TOMM I received Warwick Bryce Editor Steam Supreme

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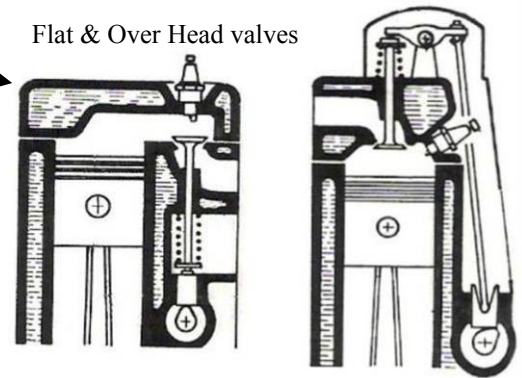
Blacksmiths First Casting



With the furnace doing a trial firing it was thought why not melt something. Some scrap aluminium was carefully added to the crucible and in no time it had melted. Now what to do? Scouting around found some fine sand in the TBM and some clay on the bank of the lake. A bit of sifting and moistening soon had a poor imitation of moulding sand. This was packed around a bit of hex bar in a moulding box and on removal we had an open topped hexagonal cavity. Ron King produced leather aprons, long gloves and face shields and the metal gingerly poured into our crude mould sitting on a bed of sand on the ground in case of a leak. After a bit of gassing it settled down and slowly solidified. On removal I could see from the aghast looks on their faces they have never seen a raw casting before but with a bit of wire brushing it did not look too bad. All it needs now is the ingate sawed off, the ends faced and drilled and tapped and you have an aluminium nut. What ever use that would be I do not know! Now we have proved the concepts it is worth considering getting fully set up.

Flat Head Ford Festival This is becoming an annual event for Scorseby . Ford of course refers to the car make and Flathead is the very old engine design where the engines intake and exhaust valves are beside the cylinders which are closed off at the top by a flat plate containing only the spark plugs (left image) . Used by Ford across their vast range of engines up until the middle 1950's the flatheads came in all shapes and sizes with 4 , 6 , 8 & 12 cylinders . Sold around the world in an equally diverse range of cars this always makes for an interesting car show. Chevrolet on the other had only had 2 engines in this period , both overhead valve first a 4 cylinder till 1929 then a 6 cylinder almost unchanged until 1955. Not so interesting .

Flat & Over Head valves



At the other end of the scale was these highly modified → V8 race cars . One for circuit racing and the other for dirt tracks.

MSTEC members had a number of less common FHF s on display



← Robert Jones T model truck . It's flathead is obvious

→ Adrian Anderson's WW2 V8 Ford Blitz (German word for lightning !)



Warwicks Bren Gun carrier , → not just a flathead V8 but the whole thing was made by Ford in their Holmsbush Sydney factory

← A dead T model engine in the back of the Chev . Note the quirky flywheel magneto . Warwick





THE AGM. Following covid practice we have been having it down at the grounds on a Saturday afternoon which has proven popular with many more members being able to attend and have a good look around the grounds to see what has been achieved over the year. It also gives the opportunity to have a BBQ before hand.

With no restrictions on indoor gathering in place the refurbished club rooms make an excellent venue for the meeting and socializing afterwards.

After featuring Terry Duggan's father model steam engine in SS last month it was realized Terry missed seeing it running at the RunDay last month. Warwick took the hint when a new bottle of metho materialized in his car so brought it along and gave the engine a good run after the AGM to the enjoyment of many.

Actually Terry mentioned the last time he saw it run was just a couple of weeks before his father departed for a 5 year stint at the War. Seeing it back in order and running again made Terry's day. One can only imagine the special place this engine took in the Duggan families hearts and what a thrill to be able to rekindle that. Just shows what a wonderful club we have.



ROLLING THE RONNIE ROUND

Our big Ronaldson Tippet hot bulb surface ignition engine in the Diesel section has always been a pig to start so is seldom run. The other day it was decided to give it a go but it defied all attempts despite having 4 men on the flywheels. We just could not get it over compression even with the cam in the 1/2 compression position. The real trouble revolves around the engine being just too big! With a bore and stroke of 13.5 x 18 inches that gives 32.5 litre all in one cylinder that is just too much.

Plans were soon being hatched for all sorts of improvement but these need to be very carefully considered especially with rare historic machinery. In my experience, rather than a scatter gun approach the first step is identifying what is wrong. Once this is done the fix often becomes obvious. But to do this it must be first understood how it actually works. It is not all that obvious as the engine has valves and levers everywhere, and little can be found on the internet or in the instruction book.

The general opinion is that here is coil in the cylinder that must be got close to red hot to initiate combustion so starting involves applying a blow lamp to the cylinder head for some considerable time. The original blow lamp is a kerosene affair with multiple burners that the devil may have concocted but has been substituted by a LPG burner years ago. Luckily Michael Stapmanns our stationary engine curator was on site so came over and explained the special starting process of rocking it backward. This was tried without any luck leading him to suspect the ignition coil was not getting hot enough so retired defeated. The next we know attention was drawn to the internet and here it was purring away as sweetly as anything. The secret was a kero blowlamp of the correct type. Obviously the LPG substitute was just not hot enough.



Screen dump from the video just as the engine kicks into life

As for starting it could not be easier . Michael wound it backwards slowly by himself while his mother manipulated the fuel and air valves and with a gentle chuff it rolled forward and picked up speed then accelerated as the full compression was thrown in . It appears the old-timers developed this secret procedure for these big engines that could not be easier if you know what you are doing or harder if you do not . We will try and find out by next month just what the secret is and how these big engines work . Thank you Michael Warwick Bryce Acknowledgement Michael Stapmanns .



← Ian Malcolm holding the long starting coil . This is located in the vaporizer in close proximity to the blow lamp so it can be heated for starting Ours is not quite right being less coils and lighter material doubled up but lack of temperature was the root cause. Len Brighton photo

The shorter running coil is in the end of the hot bulb and once started is kept hot by the heat of successive combustions so the lamp can be put out . →



Coils are made from 16 swg mild steel sheet metal . Since they do not last for ever they can be easily made out of the top of an old oil drum .to the dimensions shown below . such as the end of an oil drum .

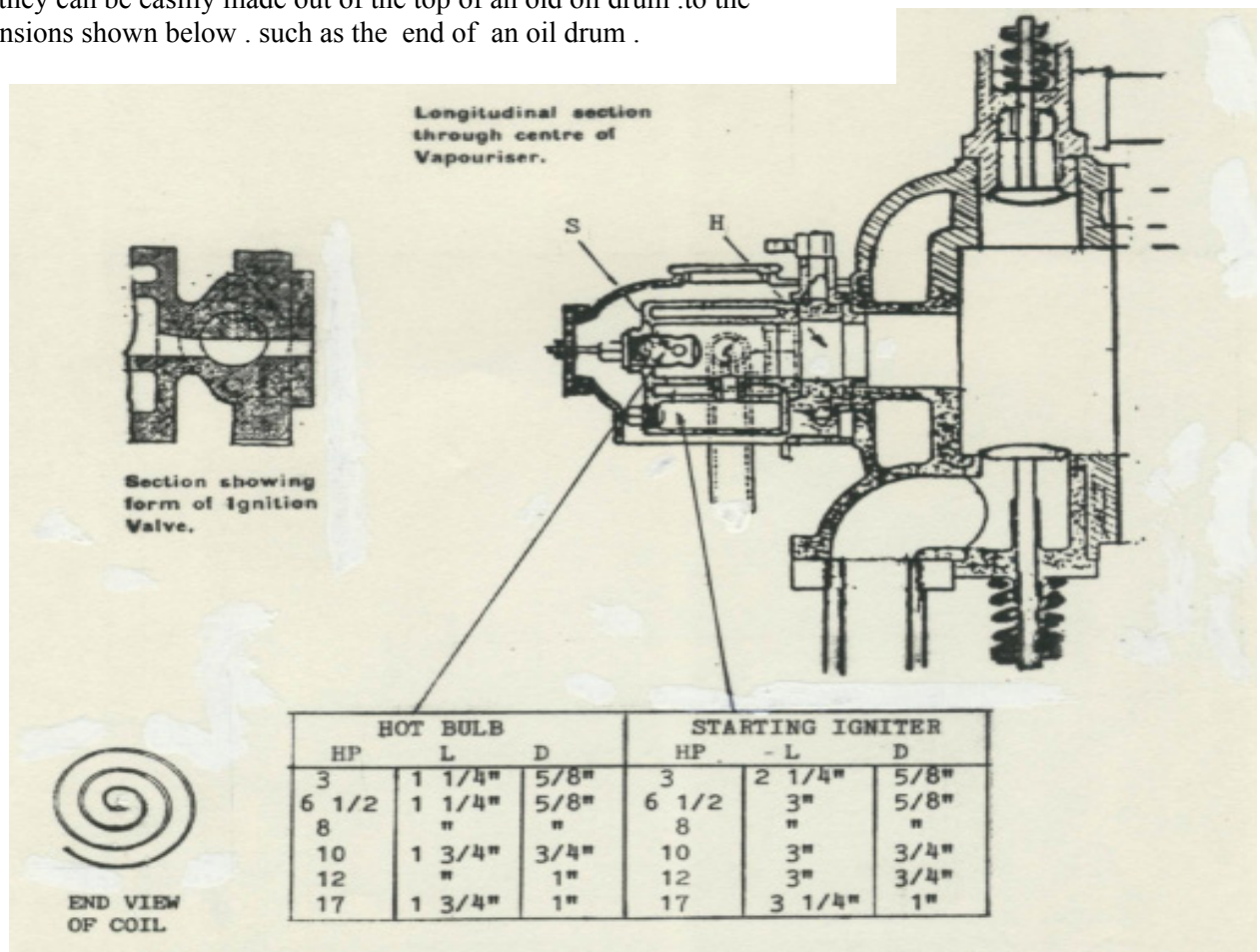


Illustration from material provided by David Beaty , Bullock Waggon to Clutterbucks covering the history of Perry Engineering S.A.

I gather Blackstone , Clutterbuck and Ronaldson Tippet hot bulb engines are virtually identical . Clutterbucks were made with Blackstone's permission due to WW1 shortages R & T I am not so sure !