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**THE BI-MONTHLY MAGAZINE FOR ALL STEAM, GAS, TRACTOR,
RAILROAD, LOCOMOTIVE AND FARM MACHINERY ENTHUSIASTS**

100 YEAR OLD FOWLER BIG LION A ROAD BUILDING CELEBRITY

Submitted by Forgedale Pty Ltd trading as GN Olsson Mastercraftsmen, Kurwongbah, Queensland, Australia.

Desmond, the 1923 Fowler Steam Road Tractor, aka B6 Big Lion Fowler Heavy Haulage Road Locomotive, (8 NHP, 3 Speed, Makers No 1213, Build No 15861, Machinery and Scaffolding No. E5993 B2224) was purchased on the 25th November 2019 by Gary Olsson of *Forgedale* at Kurwongbah in Queensland, Australia. After three years of restoration, it had a *Steaming out of the shed* Open Day on the 2nd of December and its first road outing on the 11th of December 2022.

The engine was largely intact in 2019, and able to be driven. Because it did less than 30 years of work, and was eventually out competed by combustion engine alternatives, the wear in the driving gears and the motion was not significant. For five decades since 1960 it was often run and exhibited.

From 2009 it had a functional roof and from 2015 it received basic care at least a couple of times each year.

I Fowler Supremacy

The firm of John Fowler and Co. had its origins in the 1850s when John Fowler, an agricultural engineer and inventor developed machinery for agriculture and then expanded into building steam locomotives, traction engines, steam rollers, and stationary steam engines. Their products were

exported worldwide. The factory covers 14 acres employing about 3000 men and boys.

The later traction engines manufactured represent the peak of design, for after the 1920s, only 20 engines were sold, being overtaken in popularity by combustion engines. These later engines were made from materials of higher quality than those used on earlier engines, and were of more highly evolved design. The B6 manufacturer's classification refers to the 6th and last

On the Cover

"Desmond", the 1923 Fowler Heavy Haulage Road Locomotive after restoration was finished in 2022. The restoration goal was to have the appearance of a working engine in good condition. This engine is owned by Gary Olsson of Queensland, Australia. Photo submitted by Gary Olsson.

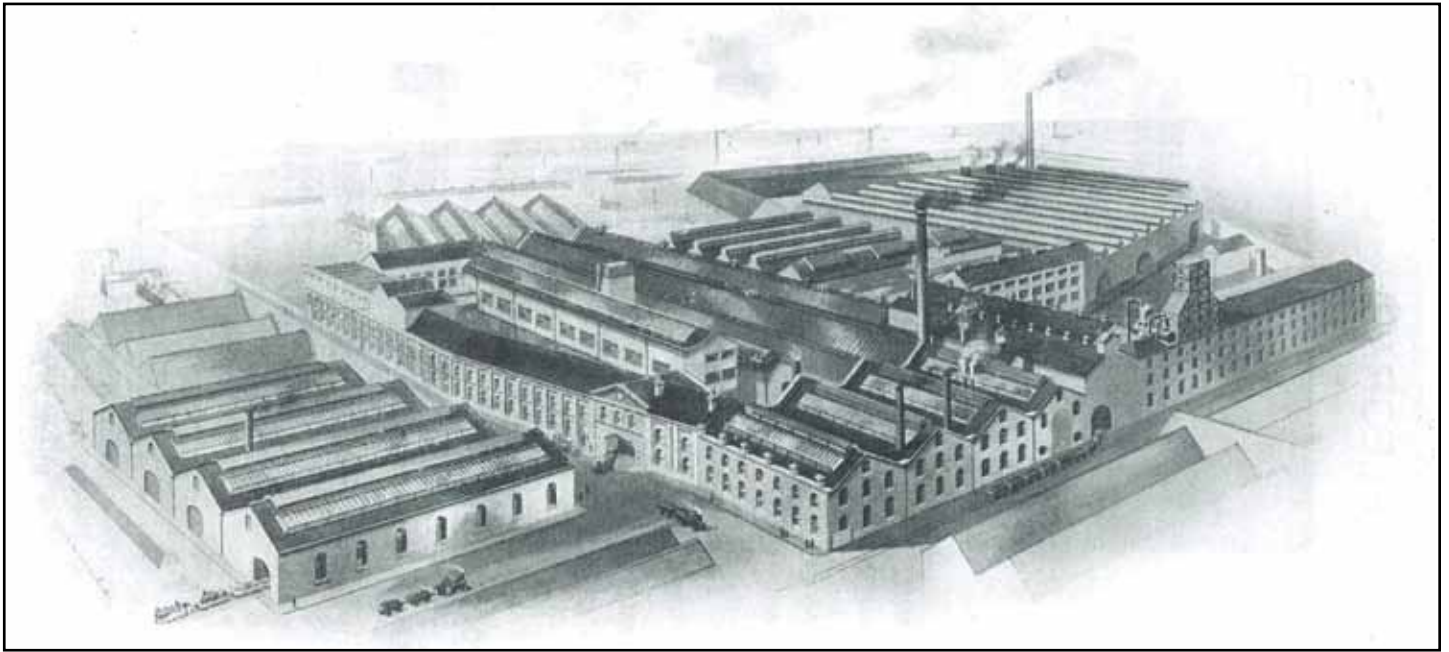
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1923 Fowler Big Lion in the McLucas suburban backyard, Toowoomba, Queensland, Australia, 2018.

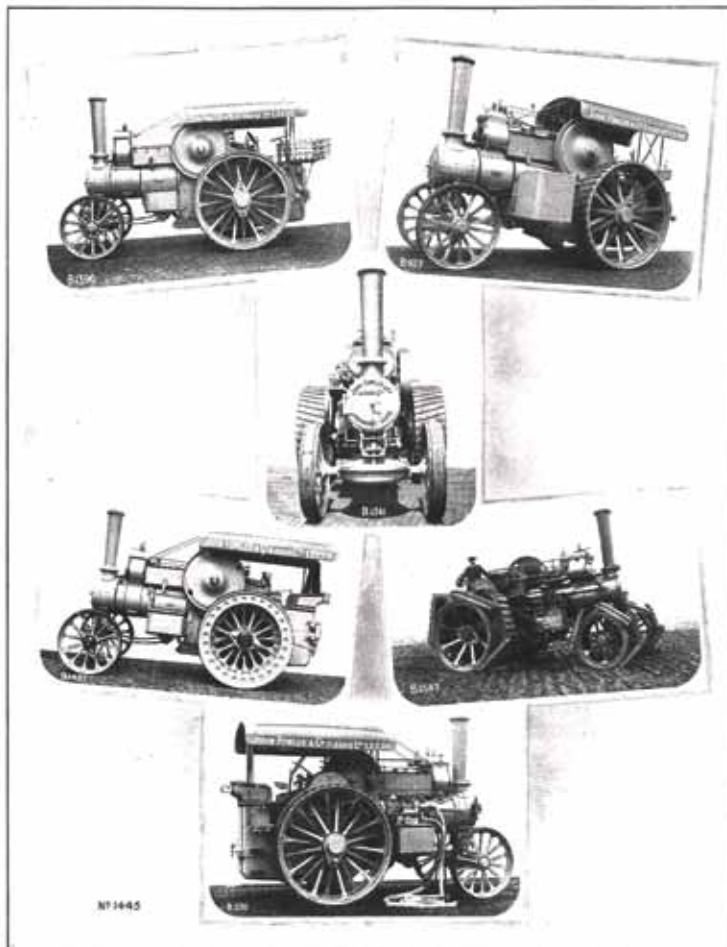
All photos for this article submitted by Gary Olsson.



Fowler Plough Works at Leeds on 14 acres, employing 3000 men and boys, 1918.

We (John Fowler and Co. Ltd.) have been turning out such a large number of heavy self-moving engines for Steam Ploughing, Traction and Roadmaking purposes since the middle of last century, long before Traction Engines became general even for thrashing purposes and when most of the manufacturers now in this trade were still making only Portable Engines.

FOWLER ROAD LOCOMOTIVES FOR HEAVY HAULAGE AND CONTINUOUS WORK AT HOME AND ABROAD.



Fowler and Co. were meticulous and highly strategic with custom orders:

If correspondents would send us as many of the following particulars as possible, we should then be able to answer their enquiries more satisfactorily and without loss of time in correspondence:—

- (1) Kind of roads on which the engine has to work and their general condition, such as width, condition of surface, and the sharpest curve to be negotiated.
- (2) If any bridges or culverts have to be crossed, give, if possible, approximate weight they will carry; or failing bridges, state if fords or drifts have to be crossed, in which case give depth of water.
- (3) The steepest gradients the engine will have to negotiate, and whether they are in favour of or against the load. If possible, a rough estimate of the length of the steepest gradient.
- (4) The kind and quality of fuel to be used. State whether coal, wood, or oil.
- (5) The longest intervals at which water can be procured on the road.
- (6) The weight and description of goods to be hauled per day.
- (7) The length of journey proposed to be made each day.

iteration of the B class boiler which was used from 1904.

Fowler heavy tractors have always held an unquestioned supremacy for moving large, special and unwieldly loads. The tractor can haul such loads weighing as much as 100 tons or more, and on arrival help to unload them with their winch.

B6 road locomotives were the most powerful and expensive engines of their type available at the time and epitomized the zenith of their class.

Special features include the Fowler modified Belaire type boiler with large heating surfaces and ample water spaces, evolved from years of experience all over the world, where the engines operated under rough conditions



Fowler Plough Works Shop at Leeds where the larger engines were erected, 1918.



A Big Lion Road Tractor – The prize exhibit at the Manchester CMUA Parade, England, 1927.

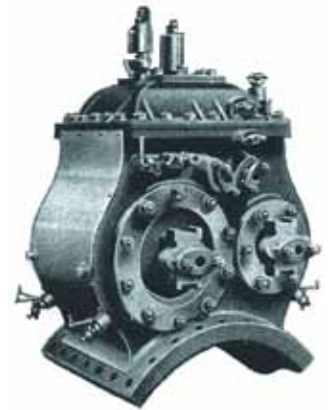
with unskilled handling. The boiler was a long box design, that is, it had a large firebox to accommodate low grade coal, and riveted construction and was made from steel plate to increase strength. There are no nuts or split pins in the steam chest which might get loose and cause damage. All gearing is arranged to work close up to the bearings to reduce stresses in the shafts.

Its compound configuration engine has a high-pressure cylinder of 171mm (6.732in.) and low-pressure cylinder of 292mm (11.492in.) diameter. The cylinders are completely jacketed cylinders with live steam and they are mounted direct on to the boiler barrel, giving unrivalled economy in consumption by Fowler Engines. In a compound engine the full pressure of the steam is made use of in the cylinders, the exhaust pressure being only just sufficient to cause the necessary draught in the fire box. Slide

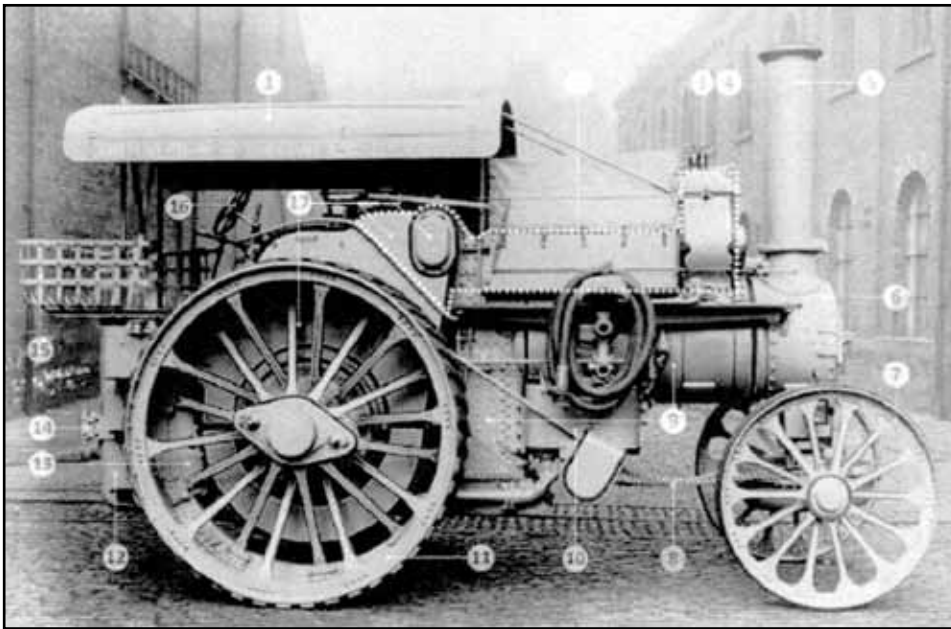
valves of D pattern of gun metal, where the flat sided valve makes its own working face, ensures it continually improves with use. This is an advance over piston valves which become inefficient as they wear.

The road wheels are fitted with T rings of strengthened section. Spring gears are on front and hind wheels to ease the longer distances the locomotive would drive. The rear axle is of nickel steel which has higher strength properties than axles on standard locomotives. It can extricate itself by means of its winding rope when in difficulty, or use it for hoisting and hauling. It is unequalled for rough work in partially developed countries, and the tractor is also far superior to lorries on bad roads. It also is available for stationary belt driving work.

The original Fowler ledger, held by the Museum of English Rural Life, MERL, includes the Description, Date of order, Specification issued date and Delivery date. They advise the term, *road locomotive* is synonymously used with *traction engine* by the manufacturer to distinguish it from a *rail locomotive*. Fowler steam road tractors include, (in order of power, size and complexity), road locomotives, traction engines and



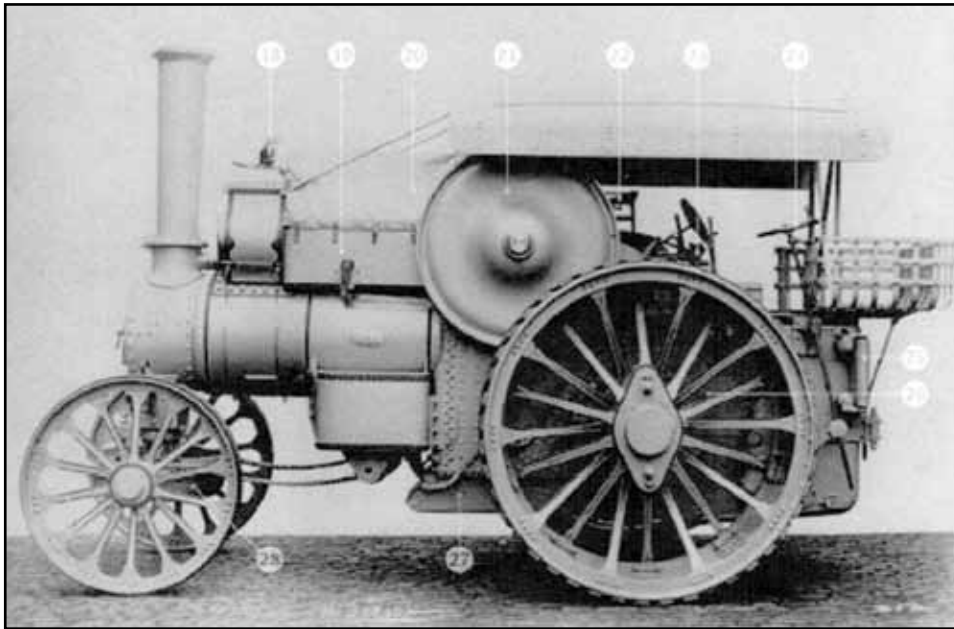
Standard Compound Cylinder, with complete steam jacket round cylinders and steam chests.



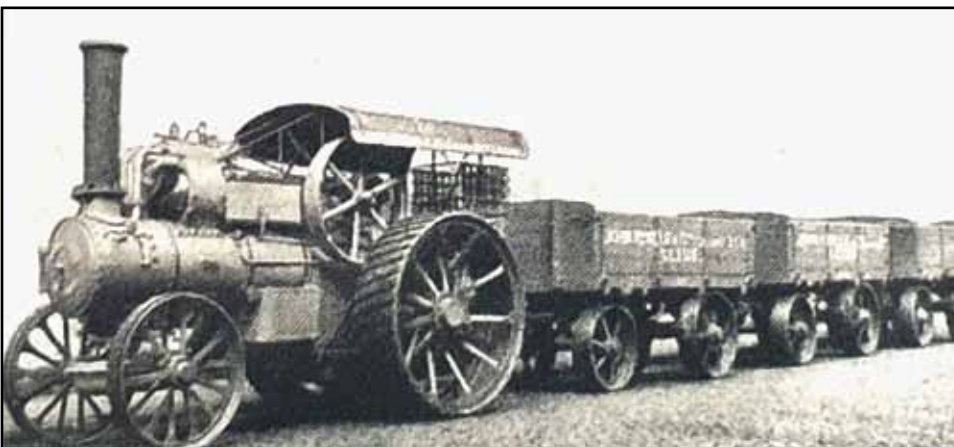
1. Canopy
2. Engine
3. Safety valve
4. Cylinder
5. Chimney
6. Smokebox
7. Front wheels (steering)
8. Steering chains
9. Boiler (barrel & firebox)
10. Front water tank
11. Rear wheel
12. Rear water tank
13. Rear brake
14. Draw bar
15. Wood basket
16. Steering wheel
17. Gears (under covers)
18. Whistle
19. Motion cover
20. Dust cover
21. Flywheel
22. Regulator handle
23. Water pump
24. Rear brake handle
25. Cable guide rollers
26. Winch drum
27. Ashpan
28. Spud pan

tractors. Also note, *Road locomotives* (contrasted against *traction engines*) typically had three speeds which provided a faster gear for road travel (whereas general purpose traction engines usually had two speeds). They were also typically fitted with a front belly water tank to provide additional travelling range before refilling (though this 15861 B6 Fowler did not have this), a disc-type fly wheel, side motion covers and larger wheels (though for extra haulage power, presumably, the 15861 B6 had 20% smaller wheels). These features made road locomotives the most expensive type of engine available.

This engine has 3 speeds, a solid fly-wheel (so as not to scare horses during road travel) and is fully sprung which are key road locomotive traits. All manufacturers have many different grades of engines, yet with lots of similarities. From actual measurements cross checked with the hand written specifications in the Queensland Main Roads Commission, (MRC) Plant Book and with the Fowler Catalogue, this Fowler Heavy Haulage Road



Anatomy of a John Fowler and Co. Road Locomotive provided by the Museum of English Rural Life.



Fowler Road Locomotive

Locomotive, 15861, is confirmed as a Special Order Big Lion. Further to that,

We (John Fowler & Co. Ltd.) call attention to the fact that all the engines we designate as Road Locomotives are not the ordinary Traction Engines mounted on high driving wheels and fitted with front tank, springs, three speeds, etc., which are so often called Road Engines and sold as Road Locomotives, but are specially designed and built for continuous heavy and constant road work. A Road Locomotive is subject to more wear and tear in one year than an ordinary Traction Engine used for thrashing and farm work only would be in four years.

Fowler in Australia – then and now

Over 450 Fowler steam traction engines and road locomotives were supplied to Australia as well as narrow gauge locomotives and road rollers. John Fowler and Co was the only British maker to establish an office in Australia, which was in Sydney.

In the case of John Fowler and Co (Leeds), one of the major manufacturers of traction engines and road locomotives, most of its road locomotives supplied to Australia were sold to government customers ...

The National Museum of Australia has two B6 Super Lions, one needing a lot of work to function and the other, 16161, is operational. There are probably a few other B6 engines of different models around. We only know of nine B6/7s, which includes 6 stump pullers, one of which is at QSVMS (Queensland Steam and Vintage Machinery Society). There is a privately owned, fully restored B7 road loco housed at the QSVMS shed at Old Petrie Town, Whiteside, north of Brisbane which was driven to the December 2022 Open Day for Desmond.



Fowler No. 16161, Lanyon Historic Precinct, ACT.

II Special order for road construction

The 15861 Big Lion engine was originally ordered from Fowler, Leeds, England with the list of drawings sent on the 27/8/1923, the specifications given on the 3/9/1923 and delivery on 6/10/1923. It was ordered by the Queensland Machinery Company on behalf of their client, the Queensland Main Roads Board (MRB).

The Queensland Machinery Company Ltd was noted in the Brisbane Courier 15/8/16 to be making a comprehensive and interesting display at its showroom. The company represented leading manufacturers of the world, and had on hand a good range of engines and machinery including Marshall portable engines, Allan oil engines, Challenge benzine engine, centrifugal pumps, steam pumps, farm tractors, ploughs, cultivators, seed drills, Sagar woodworking machines, Challenge Windmills and etc. The company can also furnish information of interest to local government bodies relative to road graders, oil driven rollers and tractors.

Fowler towing a grader, c1925.



Portability is key in roadmaking, especially of machines used at quarries and gravel-pits, where consideration is made of the distance to quarry sites from roads and the cost per mile of transporting gravel.

Desmond was a special order, with smaller wheels for greater power, bands on the front wheels and cleats (removable plates) fitted between the strakes in the back wheels so it could be used as a roller. It is doubtful if the removable

plates were ever removed over Desmond's life. If they needed traction they had spuds which gave a lot more grip. There were two spuds that came with it in 1919. Originally, it would have had 36. It was customised to enable it to roll

roads, drive rock crushers and haul road construction implements and probably wagons of road material to road work sites.

Road building, a State priority!

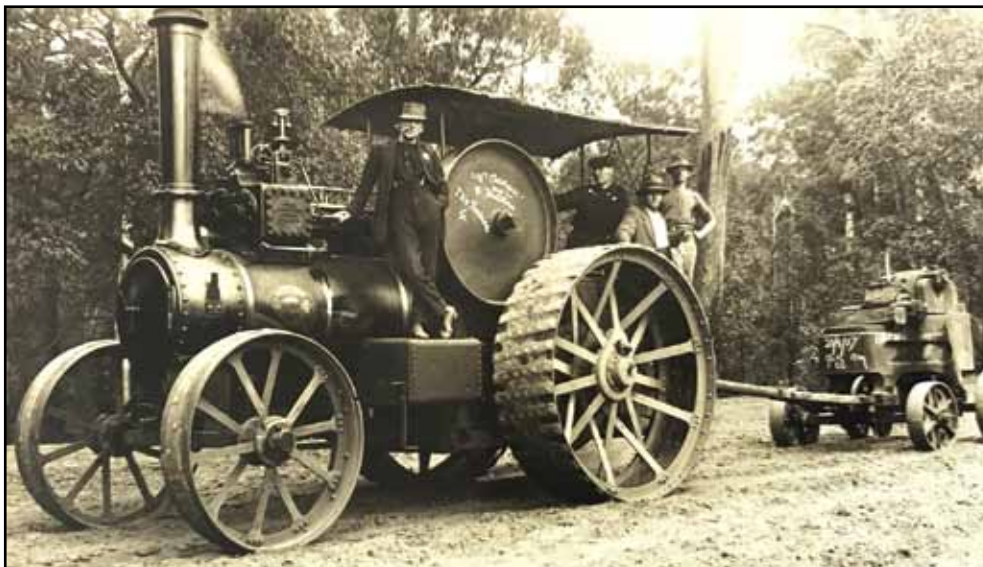
After World War I, tractors and trucks powered by internal combustion engines were taking on the traditional roles of the traction engine. These vehicles were cheaper to purchase, did not require any qualifications to operate, and did not require a waiting time in the morning while raising steam. However, there was still a place for steam locomotives and sales of these were strong in the 1920s with widespread road building programs in place ...

Queensland's road system developed in a piecemeal fashion until 1920 and even after it remained a secondary government spending priority to railways, which spread rapidly in the early twentieth century to service agricultural areas. Desmond's 2022 signwriting indicates Main Roads Board – Toowoomba – No. 128. The Main Roads Board commenced on 1/2/1921 and changed to the MRC on the 12/10/1925. The commission's objective was to address the increasing demand for the Queensland 'main roads' network, which was rapidly deteriorating. The MRC field of operations was extended to service towns not linked by railways and providing for the construction of Farmer's Roads. The basic weekly wage under the Award was £3.16 (\$320 in 2021 AUD) and the camping allowance was 4 pence per night. 1921 inaugural registrations ranged from £2 (equivalent to \$168 in 2021 AUD) to £22 (equivalent to \$1860 in 2021 AUD). In 1923 there were 17000 cars, which would rise to 92000 by 1934.

In 1925 this MRB Fowler went straight to work in the Toowoomba district, with plant number 128 assigned to it. It was primarily used to drive crushing plants at the Spring Creek (near Allora) and Gowrie Mountain quarries.



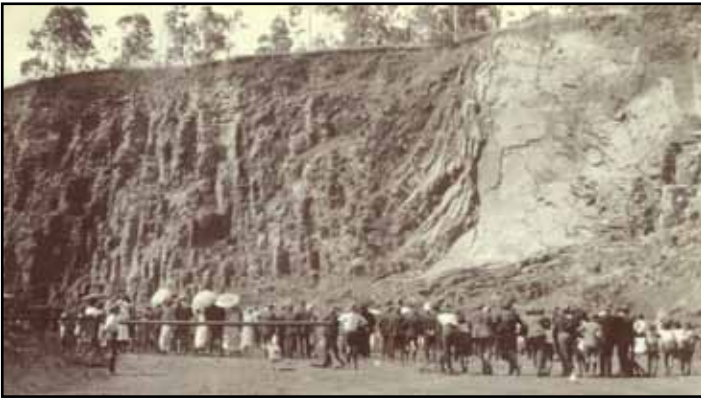
Fowler Compound Road Locomotive pulling two converted horse wagons.



Traction engine with parts of a stone crusher, Canungra, 1917.



Cotton haulage south of Gatton, 1924.



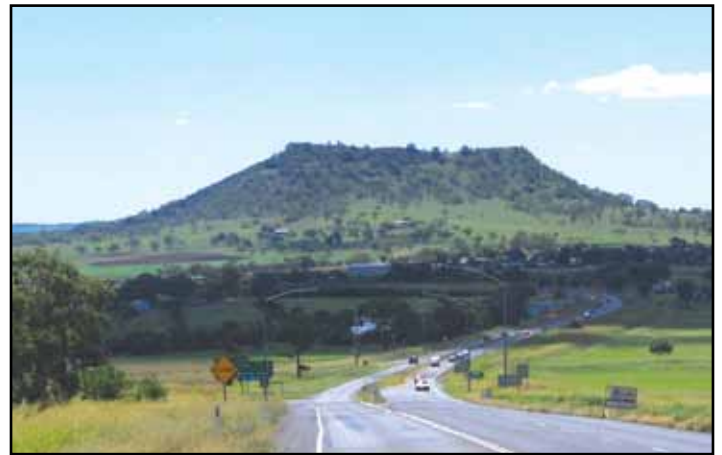
Bridge St. Quarry in 1925, Toowoomba, which was in use until 1994. This quarry was of significant geological interest for the university and local enthusiasts.



Council Quarry, Toowoomba, 1940s.

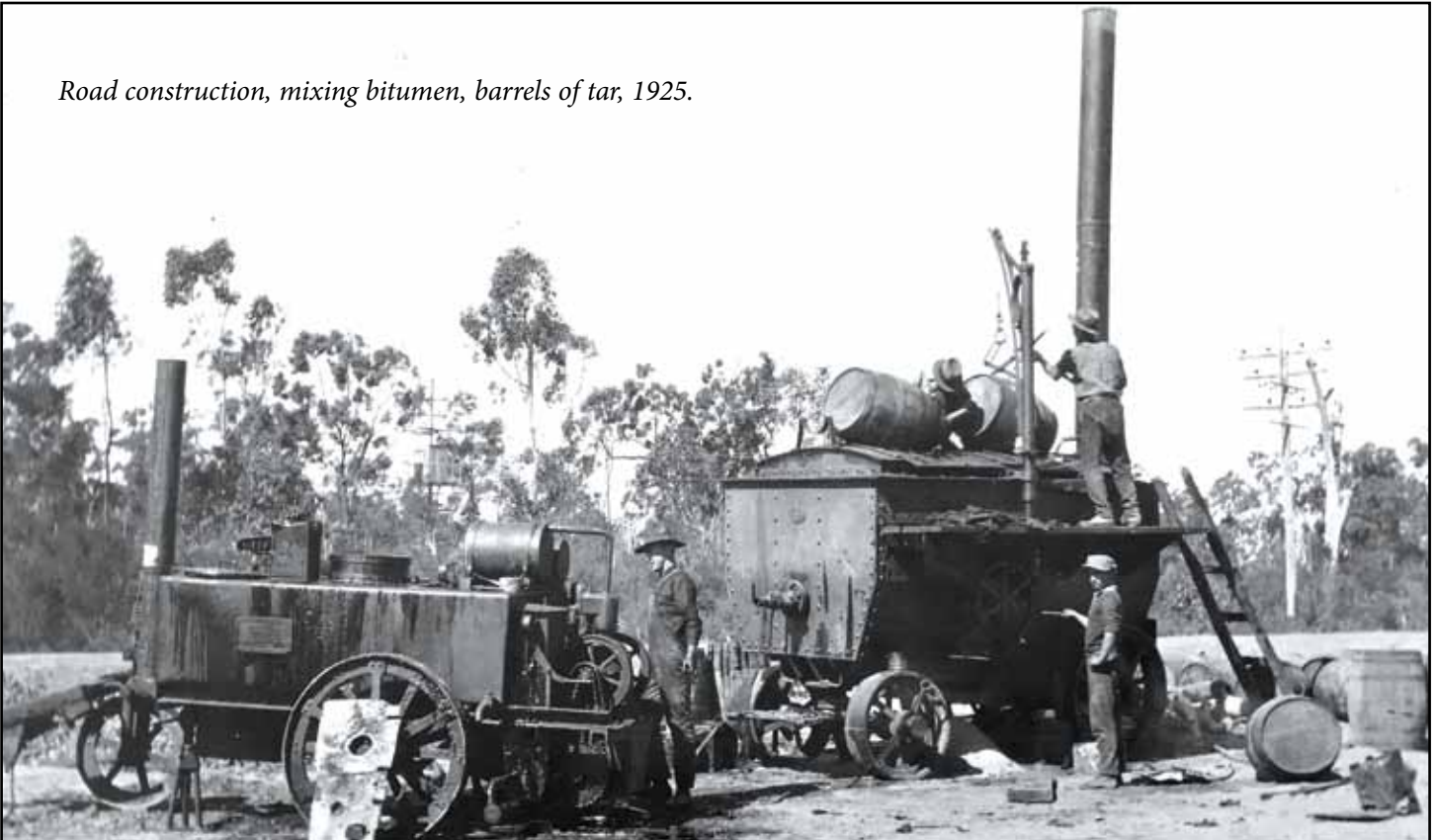
It also did some minor road rolling jobs during its life and pulled heavy roadmaking implements. It is remembered for being used to retrieve a dozer from Gowrie Creek when it became bogged during a bridge construction job.

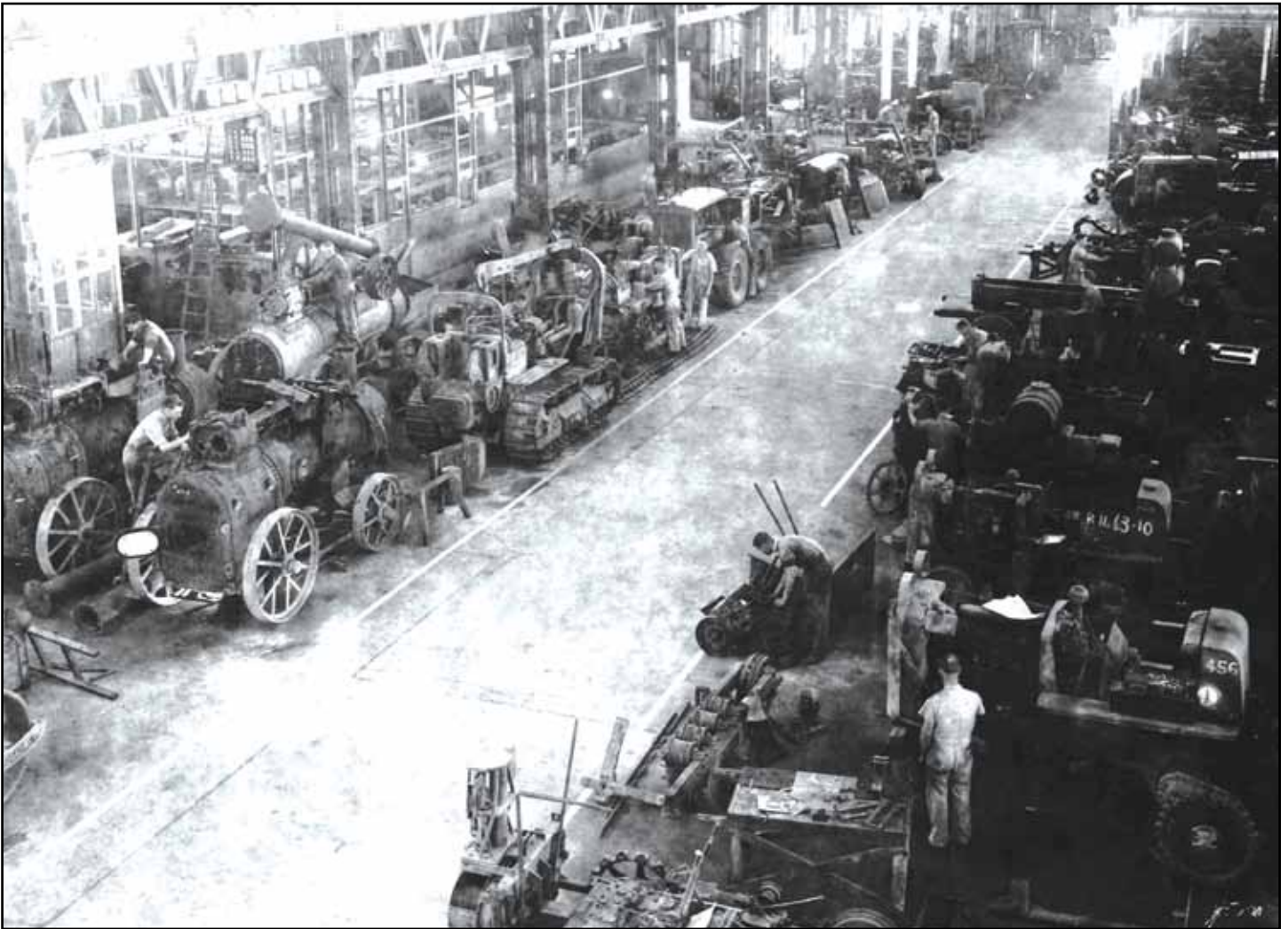
It was a significant purchase, the second most expensive item for that year, outdone by Imperial Super Diesel Crude Oil Road Roller (£1395, equivalent to \$120400 in 2021 AUD). It is noted as Item 10 in the Appendix III Table of Contracts Entered into by the Board for the Supply and Delivery of Plant and Machinery in the 1924 Queensland Main Roads Board Third Annual Report with purchase price, £1286 (equivalent to \$111000 AUD in 2021). The 128 plant number carried through when the MRB became a Commission (Main Roads Commission, MRC) and later the Main Roads Department (MRD).



Gowrie Mountain, north west of Toowoomba, c2018.

Road construction, mixing bitumen, barrels of tar, 1925.





MRC Nundah workshops 1939.

The Nundah workshops started at the old Glassworks Estate at Nundah, NE Brisbane in 1922, to undertake small repair jobs and overhauls costing £200 (equivalent to \$17500 in 2021 AUD) of the largest machines, which weren't economically done on road sites. In 1939 it covered 30000 square feet in a three acre yard, and employed 30 men including fitters and turners, blacksmiths and welders, carpenters and painters. 1500 complete repairs were done a year.

In 1928, there was a travelling workshop built and equipped with an electric generator, a lathe, two drilling machines, oxy-acetylene cutting and welding plant, lifting tackle and winch, blacksmith's forge, anvil and tools, a comprehensive equipment of over 400 general tools and a stock of shafting, bar iron, steel plate, bolts, nuts, screws and innumerable spare parts. Fitted onto a 3 or 4 ton truck chassis, it was

well ventilated, with good natural light and provided two men sleeping accommodation. It also had a 20 gallon water

tank, a wardrobe, meat safe, folding table and mosquito-proof screens.

By 1937 private registrations reached



Road construction, stone grader, c1925.

111000, greatly adding to revenue for road building. The new pneumatic tyres were kinder to road surfaces. During the Great Depression, 1929 – 1932 the department still had employment at newly opened road works. Bush was cleared to construct Cunningham's Gap and in 1933 there were 640 men on unemployment relief work clearing land and scrub and some were trained in road building techniques.

Road building in 1939 was based on economy and engineering science. *The pick and shovel will always have their*

place in roads construction, but to-day the picks take the form of tynes attached to a high-powered engine or tractor, the shovel too is mechanical, and eats through in hours the shoulder of the hill which would have taken many men days of hard and monotonous toil to remove, and so, by the application of engineering principles to roadmaking, it is possible to-day to construct better and more roads than would have been possible for the same expenditure by the methods of 40 or 50 years ago, and every year brings further improvements in methods and machines. From the

obtaining of the rocks at the quarry, where the use of explosives is commonplace and pneumatic drills are operated at a fraction of the cost of hand drilling, until the road surface is sprayed with bitumen by a machine ...

***Road making has become a science...
and the use of powerful machines
have their place...***

Where in 1819 cheap labour broke stones using hammers, in 1939 a small portable crushing plant has the capacity of from 60 to 100 cubic yards of rock a day.



Crushing plant.

By 1939, 1277 separate types of heavy roadmaking machinery at a cost of £270000 (equivalent to \$25m AUD in 2021) are owned and operated by the Commission, of which 756 machines and implements are in the Southern District. 40 Rollers and 61 Tractors (20 to 61 horsepower) operate across Queensland.

It is worth noting, too, that where the use of a machine will eliminate man-power, the commission does not take advantage of this circumstance to increase the unemployment figures. Men so released are made available for yet another job, and the machine is used as common sense suggests it should be used, to carry out work which would be uneconomic if done by hand, and not to remove men from industry or deprive them of their right to work. Every advantage is taken of Australian-made machinery, and while tractors are still imported, rollers are Australian-made.

From 1940 to 1945, during World War II, roadworks practically ceased as funds were diverted to defence, however, road construction was directed towards inland defence roads to cope with the large convoys of heavily laden army vehicles. After the war the MRXC faced resource shortages, further

increases in car ownership (129,126 in 1945 to 282,594 in 1954) and demands to seal more of the state roads with bitumen. In 1947, the Department of Transport and the Qld Road Safety Council were established. In 1948, horses were no longer used in even the more challenging and remote areas for road building.



MRC Defence works 1940 – 1945.

With full employment during the 1950s and with skilled drivers, who learned how to drive during the war, car numbers rose as fast as factories could supply them. In 1951, registrations rose to 253,000 representing one vehicle to every five people, then increased to 282,594 by 1954. This gave a windfall to the MRC in increased revenue. In 1951 the MRC became the Main Roads Department, MRD. The MRD was responsible for state highways, developmental roads, mining access, farmers roads, tourist roads as well as bridges.

The MRD's Annual Report of 1955 noted that "Queensland is passing out of the earlier phase of road construction... just sufficient to keep traffic moving. The State has entered a second phase where construction must provide for the traffic of to-day and the traffic of to-morrow...."

In 1990, it became the Department of Transport, and back to the Department of Main Roads in 1996. In 2002 Roadtek, a commercial business within MRD commenced to deliver transport infrastructure, maintenance, works and services across Queensland. In 2009 it changed to TMR, or the Department of Transport and Main Roads. Today it has 8800 employees, \$3.7b for operating funding requirements and \$3.6b for capital funding investment. Queensland has the longest total length of roads in Australia.

III Retirement with celebrity status

In 1954, aged 31, Desmond was decommissioned and sat at the Greenwattle St yard (now RoadTek). Once written off, on the 25/11/1957, there was a scrapper offer of £10 (equivalent to \$370 in 2021 AUD. At 10c/kg scrap steel, it would be \$1520 today), but thanks to the local MRD Manager, the machine was spared, for he didn't want to see it scrapped. In January 1960, Vince Carroll, a MRD employee, bought the Fowler as a joke, to pass onto his friend, George Parker, for previously, they had both been employed to work on the engine.

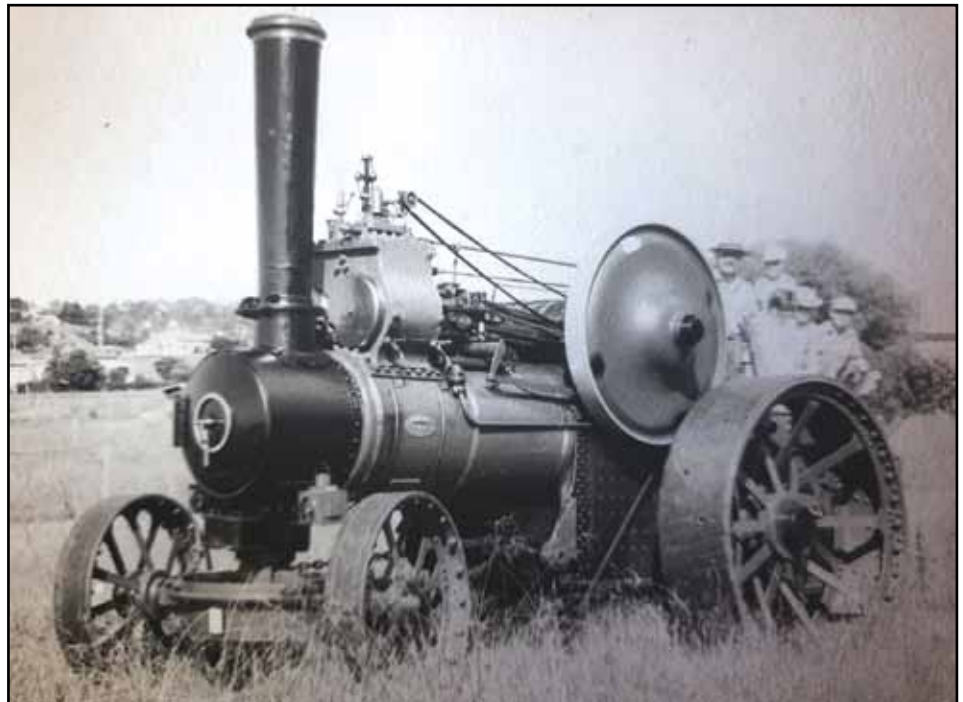


George Parker bogged again on his Drayton property.

George, a Toowoomba City Council worker, ended up paying £12.10.0 (equivalent to \$390 in 2021 AUD). He drove it from the MRD quarry to his Drayton home where it was renown for sinking into the ground, getting bogged. It was at the Stephen St Council Depot while he and his son, Noel, restored the engine. It was in the

1960 Toowoomba Centenary Parade.

On the 20th of November 1970, George sold the Fowler to Des McLucas for \$500 (\$3700 in 2022 dollars). Des had been involved with the engine before purchasing it. Des, a plumber and sheet metal worker, bought the Fowler one week prior to his wedding, even though they had no furniture for



George Parker at his Drayton property with Judy Gallagher as a teenager, Toowoomba, 1960.

their first home, and had to borrow furniture as a result.

Des restored, ran, maintained and frequently exhibited the Fowler including at a few Brisbane Ekka's (Exhibition of the Royal National Agricultural and Industrial Association of Queensland), the 2006 and 2009 Steaming Under the Southern Cross rallies, the Toowoomba Carnival of Flowers Parade and several MRD events.

The B6 Fowler was also part of the 1972 inception of the Jondaryan Woolshed Historical Museum and Park. The Woolshed Association began as a result of the grand ball, attended by 1100 people, for the 75th Anniversary of the Jondaryan School. Needing a large venue, the ball was held in the Jondaryan woolshed which many volunteers ensured was promptly restored for the occasion. The woolshed and 12 acres were donated by the owners who were encouraged by people's enthusiasm for heritage conservation. To commemorate the centenary, Des drove the Fowler from Drayton, and again, drove there in 1997 for the school's 100th Anniversary.

Des also exhibited the B6 Fowler at the Australian Heritage Week events (later known as the Australian Heritage Festivals) at Jondaryan Woolshed, including the inaugural 1980 one. It is conceivable that Gary Olsson, the current owner, whilst attending Jondaryan for concurrent heavy horse team events, actually saw Des McLucas parading his Fowler on several different occasions.



George Parker and Des McLucas delivering the B6 Fowler to Toowoomba the 20th of November 1970.



Fowler B6 driven and exhibited by Desmond McLucas, Jondaryan Woolshed 2009. Note the c2005 roof.



Fowler Big Lion 1586 (far right), on the DVD cover, Steaming Under the Southern Cross Rally, 2006.



Steaming with Des was a family activity, Jondaryan, 2006.

The Fowler was part of the family and many children grew up with it and all enjoyed activities associated with the engine's care, displays and parades. Des kept it at his workplace, having built a special shed for it. Later when that land was sold it was kept at both the Jondaryan Woolshed (in the Reg Baartz Shed) and the Highfields Pioneer Village where the B6 was frequently displayed and paraded.

In 2008 the TMR opened a Heritage Centre museum in Toowoomba. Staff were keen to fundraise to purchase this renown B6 Fowler. Des had previously taken it to a MRD parade in Toowoomba, (1970s or 1980s), and the ex-manager of the Centre published, in the 21/8/2010 Toowoomba Chronicle newspaper, his recollections, that on several occasions, Mr McLucas generously provided the machine as an integral part of departmental displays. On the first of October 2022, the Heritage Centre was closed to the public until further notice.

By 2009, Des built a functional roof for it. The Fowler was in Toowoomba, homed under the trees in his suburban back yard, where Des was known to run it from time to time.

In 2010, the B6 Big Lion Fowler looked like going to a private owner at Geelong which was not the first preference of Des who wanted it to go to the TMR Heritage Centre museum instead. The Toowoomba Chronicle article, 21/8/2010, incorrectly reported that Des felt the Department was not sufficiently interested in purchasing his Fowler. Des and Centre staff ensured a follow up refutation was published to accurately show how much the TMR values its heritage.

Unfortunately, as Des became ill he couldn't tend the engine and so he tried again, unsuccessfully, to sell it to the Heritage Centre. The engine was retained by the McLucas family after Des passed away (12/10/2013). They were keen to avoid excessive deterioration of the engine and took up the offer of Bill Ives and his son Dan, members of the Old Petrie Town based QSVMS, to occasionally steam it and get it moving. In 2018, Gary Olsson, QSVMS



*Fowler 15861 (left)
driven and exhibited by
Des McLucas at Jondaryan
Woolshed, 2006.*



*MRD exhibit of B6 Fowler, MRB Plant
Number 128, c2005.*



This startled possum, being photo shy, soon moved on to enable the 8/1/2018 steaming.

member since 2014, became aware of the engine, and assisted to keep it running now and then. Fortunately, the temporary roof helped protect it. On several occasions possums had to be removed from their home inside the boiler before it could be run.

The family were very attached to the engine for the happy memories and its strong association with Des. They were concerned that it was slowly deteriorating and decided to sell it, wishing for a local buyer who would use it, care for it and respect its history. Gary returned with steam club members to run it in January, April, October, mid-December, and then visited with his wife, around Christmas time of 2018 as he hoped to make an offer to buy it. He made an undertaking to name it Desmond, if the family agreed to sell to him, and presented a replica brass plaque cast of his hand carved template, as a family heirloom keepsake.



Gary Olsson, a renown antique restoration and reproduction mastercraftsman, www.gnolsson.com, carved the name templates ready for the brass casting.

In 2019, Gary returned to run the Fowler in February, April and July, then the purchase date of the 25th of November 2019 was agreed to, with the pickup steaming date planned for the 15th of December in 2019. A few trees had to be removed to enable the Fowler to go out the driveway and onto the street to be loaded. Not all of the neighbours were pleased, as seen by

this Toowoomba Chronicle Letter to the Editor!

■ To the fire bug burning rubbish in the area bound by Tor, Taylor and Berry Sts early on Sunday morning (15-12-19): people are trying to cool their houses down from the heat, the last thing people need is your smoke blowing in through their homes, backyard fires are also illegal in Toowoomba. Have some consideration for others.
SM

Now who would do such a thing?

This Fowler is fairly unique and impressively large in size, plus over its first 55 years of retirement in the same district, there were many drivers and steersmen who had been upon it, and many in the crowds at the parades and working displays. It is easy to see with this very public retirement life of Desmond, that the engine had somewhat of a local celebrity status with quite a big following, and even today, many people have a genuine interest in its condition and displays.

With much fanfare, there was quite a large party who greeted Desmond to the new home at *Forgedale*, Kurwongbah, just north of Petrie (home of the QSVMS), including steam club members,

enthusiasts, family and friends.

The 96 year old Fowler drove off the truck and into the shed after a few laps of honour. Apart from a shout and gasps from the crowd just before it entered the shed (as it was realised that the chimney would not quite fit under) it was a splendid homecoming. The chimney was soon lowered before parking, for what would become a three year restoration period.

Since that welcoming day, many have followed Desmond through the careful restoration period, and it was great to see over 100 people attended the big party to celebrate Desmond's December 2022 Open Day, for the first public appearance driving out of the shed.



Gary Olsson at the front gate of Forgedale unloading his Fowler B6, December 2019.



December 2019 Welcome Home Desmond!



December 2022 Red Ribbon Open Day – Desmond, restored, does the first public steaming out of the shed.

IV The Restoration Process

Following delivery in December 2019, restoration commenced immediately. Due to work being required on the boiler, the removal of everything from the fire door back was required, using Franna cranes and many block and tackle sets suspended from the rafters of the shed. Due to the length of the axle a hole had to be cut through the wall of the shed to enable its removal. The list of items removed included the wheels, the axle, tender, and badly locked tight spring system. The axle was crack tested before refitting.

After years of obtaining various quotes from rubber companies Gary finally found a suitable one to handle the large sizes and weight, given the engine weighs 16 $\frac{3}{4}$ tons. The wheels were rubbered to a shape for ease of maneuvering and travel. The water lifting hose was a challenge, needing to be black, wire bound and wire whipped at each end, so aviation fuel delivery hose was chosen. Reproduction road locomotive front and tail lamps were imported from the UK, gifted by Gary's family.



*Famous repetitious quote:
At least the engine is clean now.*

Many parts were numbered from previous restorations, however it was obvious many parts had not been touched since manufacture, and were very much locked in place. A lot of heat and patience was required for Gary to

remove so many components. After many hours removing grease and dirt built up over the years, work could begin on the boiler. This work comprised of new sections being fitted into the crown and back head. A Queensland foundryman known to Gary since their shared model steam train childhood, was enlisted to do the re-castings including the chimney base, fire door and back steps.

Gary is the type of man who makes time to see a project to fruition, working nearly every afternoon after work and on most weekends. Help was received from many club members and

friends from all fields. Even when Gary was ill for seven months, friends and members still came and worked on the engine in his absence. The assistance of skilled friends to restore the boiler and replicate parts was greatly appreciated. Their assistance throughout the project included research, advice, labour, moral support, investigating potential suppliers, organising transport, boiler work and manufacture of numerous small missing components. Many volunteered and several supportive contractors discounted their rates for what they deemed a worthy heritage cause.

All steel for the boiler had to be certified and approved by the boiler inspector prior to purchase. It had to be welded by a qualified pressure vessel welder, initially supplying samples, then doing the work to the inspector's specifications.

After fitting some new rivets on the foundation ring, wall stays and girder stays, the boiler was ready for hydro testing to 220psi enabling a 140psi boiler certificate to be issued. The engine was then reassembled, with cleaning and painting as part of the process. The only major repair was the replacement of one main bearing which was badly worn due to previous repairs blocking the oil hole, leaving it to run with insufficient lubrication. A lot of minor repairs were done along



Gary Olsson at the Brisbane City Hall entrance for the Model Steam Engine Train Display, c1969.



Boiler work in 2020.



*First steaming since restoration began beers.
It really does take a community to restore an engine! 2022*

the way. Other repairs included replacement of the smokebox door, shortening of the excessively long chimney and replacement of the running board.

In preparation for its use on the road, rubber was fitted to the front wheels. Rubber was also fitted to the filler plates which were bolted between the strakes of the back wheels. A reproduction roof was custom made by Gary who daylights as a renown antique

restoration and reproduction master-craftsmen. It was based on original drawings supplied by an owner of a similar engine who had obtained them from the Museum of English Rural Life (MERL).

The deliberate aim was for the Fowler B6 to have the appearance of a working engine in good condition. Although it took three years of consistent restoration effort, it is considered a fairly simple restoration project compared with those typical in the steam world. As its purchase

was not that long before diesel came in, it didn't have excessive wear.

Public Steaming and Road Test

The restoration goal was to have the appearance of a working engine in good condition.

On the 3rd of December 2022, the engine officially steamed out of the shed, breaking the red hessian ribbon, amidst the gathered crowd for the Open Day themed, *It takes a community to restore an engine*. The previous day, it was registered for road use with



Rollercoasting on a local, hilly, quiet road for the first road test.



Reproduction roof fitting in Forgedale shed 2022.



On a local public Kurwongbah road on the 11th of December 2022 for the first road test since restoration.



Gary at Ena and Roy Barney O'Toole's Satur Sheep Station on the Moonie River, near Flinton, Queensland, Australia

some preparation and appropriate answers from Bill Ives, steaming friend and QSVMS President. Gary was treated to great patience and assistance from the TMR staff. So now, Desmond as a *special interest vehicle* is Queensland registered as S51242, permitted to have limited road use to attend rallies and impromptu events, processions, displays, fetes, ceremonies, repair service providers, and to do road testing.

Just over a week later Desmond passed a two hour road test by Gary and his steaming stalwart, Bernard Fellner, along adjacent Narangba Rd, the nearby Narangba Service Rd and then the rollercoaster Coopers Rd, with great views of Lake Kurwongbah and the D'Aguilar Ranges. This road test was attended by QSVMS President and a few neighbours and friends in the know. Gary said it was good to drive, which many pre-restoration drivers also felt was the case. It handled well on the road in third gear. It likely was the first time it was in third gear since the late 1980s. Unsurprisingly, there were minor problems which are readily being attended to ready for the second road test.

Future aspirations

For the future, the steering chain could be replaced, and the front end could be freed up more as it is stiff and somewhat clogged due to insufficient use in recent years. Ongoing tweaking and maintenance will continue. A 100th year birthday celebration seems appropriate for this soon to be centenarian, on the 6th of October 2023. A living van would make a nice addition.

It is Gary's intention to drive Desmond to his local club, QSVMS, two hours steaming away by road, for some of the steaming days and special events.

If Queensland steam enthusiasts' dream of a *Steaming Under The Southern Cross* combined with the National

Rally event at Jondaryan Woolshed in 2025 becomes a reality, Gary hopes to be there with Desmond under full steam, to exhibit in front of all of the fans of his celebrity Big Lion.

However, the next project is to finish restoring Gary's 1880 timber wool wagon to haul behind the Fowler. Road locos would have been seen hauling the wool clip up to the 1940s as the big teams of horses could no longer compete. Ironically, Gary's been a horse team owner and driver for 30 years. Culminating in 2013, where he was a guest driver of a team of 10 horses at the Yangan Field Days on the Darling Downs in Queensland. Who would have thought in 2014 he would turn to steel and steam horsepower? Bought in 1995 from Ena and Roy Barney O'Toole's of their *Satur* sheep station on the Moonie River near Flinton in Queensland, it has slowly been restored using large timber from eucalypt ironbark felled and milled on the Forgedale property – but that's another story.

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