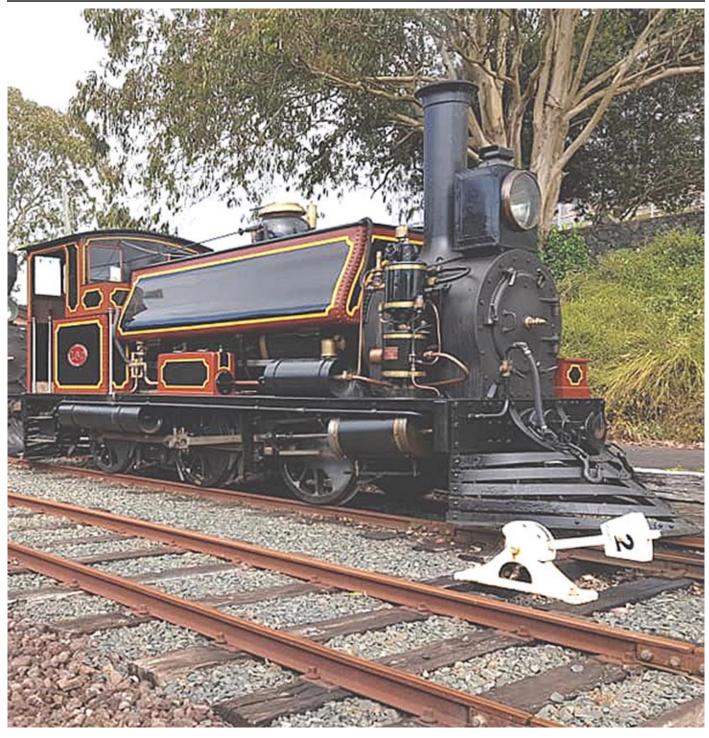


The Squeaky Wheel

The MOTAT Society Newsletter ISSN 2350-2940 (Print) ISSN 2350-2959 (Online)

Issue 32 - 2018



MEG THE MAGNIFICENT

F180, Meg Merrilies, basks in the sunshine at Waitikiko station, after entering service on August 19 following a 36 year restoration. See pages 4 to 9 for a photo essay of the project

photo by Martin Radford



ANNUAL GENERAL MEETING Reconvened

Wednesday 5th December 2018
Room D4 opposite Tramway lunchroom
6:00pm – 7:00pm

This meeting is being reconvened to <u>ratify</u> the decisions made at the Annual General Meeting held on Monday 24th September 2018 at which a quorum of 30 members was not present under Rule no 13.3(a). In accordance with Rule no 13.3(b) no quorum is required at the reconvened meeting.

AGENDA

- Apologies
- Minutes of last AGM held 12th September 2017
- Chairman's report
- Treasurer's report
- Election of Officers

Under Rule 8(c) the following Section nominations were received and approved at the 24th September 2018 meeting

- Aviation Frank Hannay
- Military Greg Pittams
- o Printing Evan James
- Rail Richard Croker
- o Trams nil

Rule 8(d) allowed for five further members to be elected to the Committee by those present and entitled to vote at the AGM.

The following nominations were received and approved under Rule 8(d)at the 24th September 2018 meeting:

- John Tutchen
- Bruce Johnson
- Bill Rayner
- Further nominations for Committee are to be advised 14 days prior to the reconvened AGM

For those interested in the Auckland Culture Heritage sector review of museums visit www. knowledgeauckland.org.nz

The Museum of Transport and Technology Society

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FIRST SQUEAKY WHEEL FOR A WHILE

This issue of Squeaky Wheel magazine is the first issue since #31 appeared in January. This delay was caused by a house shift by editor Evan James.

Now that he has settled into his new home in Huapai, it is planned to resume the quarterly editions of the magazine.

LOW TURNOUT AT AGM

Brief report on the MOTAT Society Annual General Meeting held on 24 September 2018

Despite the billing of this AGM as an opportunity to discuss the future of the Society a record low of 25 members attended.

This was a very disappointing, but perhaps unsurprising turnout when one reflects on the museum volunteer engagement survey results over the past two years. Additionally, perhaps, reflecting the reality generally of volunteers organisations across society that today are experiencing greater difficulties in attracting active membership.

As a result of the turnout, which did not reach the 30 members required for a quorum, a member has requested under the rules the reconvening of the meeting.

It could be noted this was also a factor at the AGM in 2017 but where, due to the routine nature of the business conducted at the AGM, the committee made a pragmatic decision to not reconvene the meeting.

The discussion on the future of the Society reached no great heights for new ideas or initiatives.

However the following are the key contributions and conclusions.

- There is an accepted obligation and responsibility to ensure the MOTAT Society continues to function and carry out its duties under the MOTAT Act 2000.
- The rules of the Society need to be reviewed to reflect changes at the museum over the past few years which have resulted in the effective disappearance of volunteer sections and reduced numbers of the "traditional" volunteers who are also Society members.
- Most members at the meeting would reflect on the past culture and skill sets of the volunteers at the museum and perceive negatively on the apparent "modern" trends of museum-ology and clearly influencing the reduction in number and morale of those volunteers.
- On the other hand Alan Curtis spoke forthrightly on the need to get over it and live with the commercial and bureaucratic realities of the present environment.

On a wider level the publication of the review of the Auckland Culture Heritage Sector published subsequent to the AGM will, along with the above, provide much for the new committee to think about. This review can be read by visiting - www.knowledgeauckland.org.nz

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AVIATION



ABOVE: The tailplane of Short Solent Mk IV S.45 flyingboat, ZK-AMO, "Aranui", gleams in its new coat of paint, as in it is being restored to its TEAL colours

photo by Evan James





ABOVE: One of the exhibits now missing from the MOTAT Aviation Display Hall is the De Havilland Devon. On loan from the Royal New Zealand Air Force, it has now been returned to the Air Force. It is seen here being stripped down ready for transportation to the RNZAF at Ohakea. The aircraft, NZ1813, had been with the airforce since 1953 before coming to MOTAT in 2010, and going on display in 2012. Because of the excellent condition that it had been maintained at MOTAT, a posible return to flying condition has been cited by the Air Force.

LEFT: Solent Project leader Steve Subritzky working on a section of the Solent, working towards a target finishing date of March 2019.

photo by Evan James

PRINTING



ABOVE: The cleaning of Linotype matrixes used to be the work of apprentices, but in the Print Section it is the work of volunteers, with new member Warren Weekes, a tradesman compositor, and Brendon Laing carrying out the work. The matrixes, the brass moulds into which the letters are cast on the Linotype machine, are cleaned by rubbing them on a cloth soaked in white spirits.

RIGHT: Willy Coenradi operates the Printing Section's Linotype machine watched by MOTAT patrons Jeff Nusz and son Ezra Nusz.

photos by Evan James



MEG IS BACK AFTER A 36 YR RESTORATION

A 36 year restoration effort by MOTAT Rail Section members came to a triumphant end on August 19 2018 when F180, Meg Merrilies, steamed out of Waititiko station.

The locomotive was driven by Jim Savage, who had been working on the iconic locomotive since the project started in October 1982.

A large crowd was there to witness a formal ceremony which included speaches by MOTAT Chief Executive Officer Michael Frawley, and the Rail Section's Graham Anderson, the cutting of a ribbon and a cake made especially for the occasion

Among the crowd were some of the volunteers who had worked on the locomotive over the years including one, Tony Brens, who had travelled from Australia.

Mr Frawley said he personally didn't think that the day was ever going to happen before he retired from the museum.

"It is thanks to the railway team and particularly Jim Savage that 36 years of work have culminated in today's event," he said.



The smile of satisfaction of a job well done. F180 restoration project leader Jim Savage beams from the cab of the locomotive as he prepares to drive it on its maiden trip to Keith Park station on August 19. Jim was at the start of the project on October 1982.

both photos by Richard Croker



MOTAT Chief Executive Officer Michael Frawley (in white shirt) addressing the crowd at Waititiko station before cutting a ribbon and sending Meg on its first passenger journey since 1966.

LOOKING BACK OVER 144 YEARS OF SERVICE

F180, Meg Merrilies, was born at the Meadow-Hall, Sheffield, works of the Yorkshire Engine Co Limited in 1874.

It was the 244th locomotive built at the factory, and was one of 88 locomotives of the class built by seven manufacturers in England and Scotland, which became the backbone of railways services in pioneer New Zealand.

It was shipped to Wanganui at as kitset and assembled at the local workshops, being one of the first two locomotives there. It saw exclusive service on the Wanganui-New Plymouth section until its donation to MOTAT in 1965 and its transportation to Auckland.

Originally numbered 26 it received the number of F22 in the sectional numbering scheme of between 1882 and 1890, and then F180 when a national numbering scheme was introduced in 1890.

It was named after a character in a Sir Walter Scott novel in line with an edict from Engineer-in-chief John Carruthers that locomotives with $10\frac{1}{2}$ inch cylinders be named after names in Sir W. Scott's works.

Meg Merrilies was the ugly half-mad gypsy in Sir Walter Scott's novel "Guy Mannering", which was name given to Meg's sister Wanganui locomtoive F21.

However, there is little photographic evidence from the period that the names were actually painted on the locomotives, other than an 1874 photograph of "Rob Roy" before it entered service.

The first photographic evidence that Meg had its name painted on the tanks was when it was working at the East Town Workshops, and had been "adopted" by the workshops crew.

F180 was withdrawn in 1932 but was then used as a workshop shunter at the railways East Town Workshops at Wanganui until 1965 when it was donated to MOTAT.

While at the worshops it had featured in the Taumarunui Borough golden jubilee celebrations in 1960, running to Taumarunui under its own steam.

In 1924 the Yorkshire Engine Co featured Meg in an advertisement, emphasising the longevity of its product.

IT ALL STARTED IN 1982

Work started on the restoration of F.180 Meg Merrilies in October 1982 when the water tank was lifted off the boiler. At the time the Rail Section workshop was at MOTAT 1 where the Road Transport workshop is now. This revealed a very rusty boiler and steam dome that would require a lot of work before it could steam again. Little did members realise that it would almost 36 years to the day before Meg would run again.

RIGHT: A crane lifts the water tank off Meg. Supervising on the ground is retired railways engineer Tom Ashby, now deceased, with Ronny Brens and Mark Rosenfeldt on the cab roof. That's the Tram Section's woodwork shop being erected in the background





Bryan James (left) and Ronny Brens inspect the rusted steam dome after it had been revealed by the removal of the water tank.



Jim Savage (right) holds up a cold chisel which he found inside the boiler of Meg after the steam dome top had been removed. It is believed that the chisel had been accidently dropped into the boiler many years earlier. Looking on are Bruce Mai (left) and James Smith.



Fast forward to June 7 2003 and the boiler had arrived back on site after extensive work which included a new tube plate and steam dome, and sat on a workshop bogie in the newly completed carriage workshop at MOTAT 2.



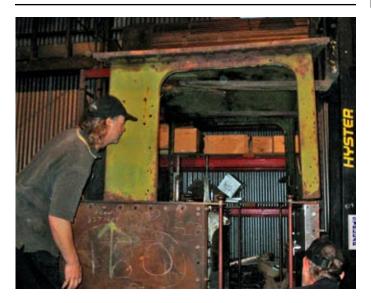
Meanwhile in the main engineering workshop, work was already underway on the chassis, which by this time had received new headstocks



Two years later work on the chassis and running gear was virtually finished. ABOVE LEFT: April 9 2007 shows the chassis being worked on. while ABOVE RIGHT: May 7 2007 shows the restored valve gear into the steam chest in place.



Work on Meg was put on the back burner for the next two years as all efforts went into a major overhaul of L207 as it was prepared for its starring role in the North Island Main Trunk Railway Centennial celebrations on August 8 2008. Once that work was out of the way, work on Meg cranked up again.



March 11 2009 the sheet metal work for the cab rear and the bunker sides was underway and a trial fitting was held with the top part of the old cab, seen here with Stuart Capon checking the fit. This was then dismantled for the finishing work. It would be 2015 before the cab would be finally assembled.



Boiler work was also underway as Jim Savage is shown honing the tube plate for the tubes on April 14 2009.





ABOVE: Ted Leach fits a tube on April 29 2009, assisted by Martin Radford. These had been cut to length by Brian Rosenfeldt (LEFT) seen here on April 15, 2009

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The old skills of hot rivetting metal, once the most common way of joining meal plates together, had to be learned before the cab could be built

LEFT: Andrew Holemby holds a die block, as Paul Spearpoint, wields a sledgehammer to shape the red hot rivet, with Ted Leach holding the metal bars which were to form part of the rear cab panel on April 29 2009. Nuts and bolts held everything in place, until being replaced by the rivets.

BELOW LEFT: Pneumatic riveting was also used, with Paul Spearpoint manning the rivetting gun and Ted Leach the die block, with Pete Cairncross watching on as the rear cab panel takes shape on May 13 2009.





New coal bunker splashers arrived from Progressive Castings of Avondale, shown here with an old one. These were cast to patterns made by Paul Spearpoint.



Dave Lye, pulls a white hot rivet out of the furnace.



ABOVE: Paul Spearpoint, watched by Dave Lye, works on the fireman's side coal bunker on April 28 2009.



The maker's plate, back to its shiny brass original best.



On May 14 2009 project leader Jim Savage attaches the plate back onto Meg's rear lower cab panel.



Six years later and it was turn of the top panels of Meg's cab to be hot rivetted togther. On July 5 2015, Paul Spearpoint is pictured with Murray Wilson during a special public demonstration day organised by the museum



July 2015, and Meg's finished backhead looked a work of art in polished brass



In 2016 it was the turn of painter signwriter Shane Price to work his magic on Meg. LEFT on February 21 Meg had received its coat of black, and BELOW on July 17 it was resplendent in its fully lined 1909 colour scheme of black and Indian red with yellow lining with its boiler bands polished.



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Several attempts were made at re-creating the complex shape of the saddle water tanks before they were successful.

ABOVE: The tank top in the foreground is ready to be fitted to the bottom barrel and ends which are in the background of this October 16 2016 photo.

ABOVE RIGHT: By January 15 2017 the sides had been hot rivetted to the ends. The inside of the tank features a liner.



The headlight almost ready for fitting to Meg on December 18 2017. The light was donated to the Rail Section by the Publicity and Advertising Branch of NZ Railways in the early 1980s and includes a kerosene burner.



December 18 2017 saw the arrival of one of the final pieces of the restoration puzzle, the steam dome top. It was made by Mt Roskill Metal Spinners, and is seen here being admired by Jim Savage.

MEG ON MAINLINE EXCURSIONS

After being donated to MOTAT by the New Zealand Railways, Meg was used by the Railways Enthusiasts Society for excursions around the Auckland suburban area befiore coming to MOTAT. For those excursions it was painted a generic green by the RES to represent the paint scheme that the locomotive wore when it first entered service. This was the paint that it wore until it was overhauled at MOTAT. The excusions were to Drury on October 3 1965, and to Swanson on March 26 1966.



ABOVE: Meg northbound, south of Manurewa, on the Drury excursion of October 3 1965.

Ektachrome transparency by Evan James



ABOVE: Meg northbound on the Henderson bridge on the Swanson excursion of March 26 1966.

Kodachrome transparency by Evan James

TRAILER 21's SHINY NEW SIDE PANELS

When trailer 21 enters service it will feature shiny new aluminium side panels.

These have been manufactured in Christchurch, and are currently being prepared for final assembly.

Writing in the Tram Section's The Controller magazine, Tony Messenger said the trailer was originally manufactured in Christchurch, by Boon and Co, and the side panels are similar to ones for a Christchurch tram 24 being restored by the Tramway Historical Society at Ferrymead.

These were made by Thorpe Engineering using a special brake press to manufacture the corrugations into the metal.

The originals were unrestorable because of electrolysis damage resulting in widespread joint corrosion.

"The panels need to process through a series of stages before they are ready to fit," wrote Tony.

"Firstly, they all need to be drilled along the sides, tops and bottoms.

"The side drillings will match the holes in the spring steel strips to be rivetted to them.

"These strips run in the sheet-metal guide channels screwed to the front of the contoured ash posts forming the main vertical body framework for 21.

"The guides continue on up into the roof

structure where the panels and windows stow when the trailer is opened up.

Next the panels need to be folded back on themselves along the bottoms, then they can have the overlap marks, scratches etc buffed out and fine finished before going to the anodiser, worked being carried out by Dave Lennard'





ABOVE LEFT: One of 21's original corrugated aluminium wall panels with post service garden shed green paint.

ABOVE RIGHT: A new corrugated aluminium wall side prior to polishing, anodising and the installation of top, bottom and side stiffeners.

Dave Cawood photos

TRAM NEWS





TOP: Tony Messenger's CAD drawings of Trailer 21 with the side panels down and -

ABOVE: With them stowed in the ceiling.

 $drawings\ supplied\ by\ Tony\ Messenger$

wrote Tony.

Anodising is a chemical process that forms a hard film on the base metal

Once the panels have returned from anodising, spring steel side strips will be rivetted on and Sydney Blue Gum wooden stiffeners similarly secured to the tops and bottoms.

The drilling, rivetting, folding work is to be carried out in the MOTAT Aviation workshop.

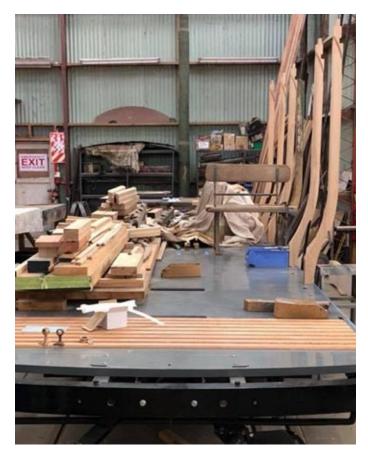
NEW DISPLAYS

The rebuild of trailer 21 is being explained in a new display panel in the foyer of the lower tram barn.

The display, which is a collaborative effort between volunteers and the museum display staff, features an artist's rendering of the final product, and features samples of the various types of wood being used and explanations of where they are going.

Trams 893 and 906 also have new information displays with details of each the car, significant parts, crew roles and infrastructure.

from The Controller magazine



ABOVE: A trial fitting of the side pillars and their hold down brackets into slots in the frame, before to ensure everything fitted before final finishing.

David Cawood photo

SIDES GO UP ON TRAILER 21 FOR TRIAL FIT

The sides pillars have gone up - temporarily - on trailer 21 as a test fitting of the side pillars and their tie down brackets was carried out to make sure everything fitted before final paiting and varnishing was started.

Meanwhile the collection of new parts for the final assembly of trailer 21 continues to grow.

Work has concentrated on the timber for the seats with the American ash seat back timbers being sanded and varnished after being CNC machined by Styrotech.

The next stage will be the machining of the rebates for the seat stanchions.

The bulkhead seat back timbers have also been CNC machined by Styrotech, and finished off by the volunteer crew under the direction of Leyton Chan.

TRAM PATRONAGE INCREASING

Passenger numbers on the Western Springs Tramway have been continuing to show a steady increase according to the latest figures published in the Tram Section's The Controller magazine.

Between 2013 and 2016, patronage hovered around the 180,000 mark, but then leapt to 203,843 in the 2016-17 year, and then to 209,627 in the 2017-18 year. In the two months of the current museum year, patronage dropped by 1136 in July, before going back up by 1138 in August.



The four bulkhead end seat backs and their stiffeners ready to be assembled with the light and dark seat slats.

David Cawood photo



The American Ash seat backs ready for the seat stanchion rebates to be machined in. These were manufactured by Styrotech to a CNC program supplied by Leyton Chan and finished in the tram workshop. An original which was used as a pattern is in the foreground.

David Cawood photo



The coupling bars to join trailer 21 to steam tram 100 after their arrival from the manufacturer. Left are the two parts joined, while right are the parts separated.

David Cawood photo

LUSH AWARD FOR "GOLDIE"

50 years of duty at MOTAT by Military Section volunteer Ross Goldworthy was recognised with him being awarded the MOTAT Society's Lush Award for volunteer dedication.

The award was presented to Warrant Officer, 1st class (retired) of the Royal New Zealand Artillery, Ross (Goldie) Goldsworthy, at the Society's recent annual meeting by outgoing chairman John Syme.

Military Section's John Tutchen said that when Ross wasn't waxing lyrical about search lights and military vehicles, he could be mistaken for a "silent type".

"But the 86 year old, (87 next month), comes alive when he's doing what he loves best - sharing information at our Museum of Transport and Technology," said John.

"For more than 50 years the, now, Titirangi resident has volunteered at MOTAT, where he welcomes visitors, hosts exhibitions and drives guests around the site in classic military vehicles.

"He is a backbone of the small,

but heavily armed, Military Section," said John.

In 2013 Ross won the "Outstanding Contribution" section at the 2013 Waitemata Good Citizens Awards for his dedication to the MOTAT cause, along with other MOTAT volunteers Leyton Chan (Trams) and Toby Hutton (Military), and is also a Life Member of the MOTAT Society.

A regular soldier in the New Zealand army, he was called to the museum in the 1960s when volunteer workers were needed to help run a 90cm ex-military searchlight.

Being a fully trained search light operator, he was familiar with the lights which were designed to spot ships on water, and he offered his knowledge freely.

But he said he never imagined that 55-plus years later he would still be helping out.

Interviewed by a local newpaper, he said "I really went to MOTAT to help with the search light, and now I do everything from looking after the stores to hosting exhibitions.

"I just enjoy the company of the blokes and talking to the public,' he said in the interview.

The father of four took a break from his volunteering at MOTAT in 1968 when serving in the New Zealand Army in Vietnam, serving with the 161 Battery as Battery Sergeant Major, and took a break later when his first wife lla fell ill. He picked up his volunteering hours at MOTAT again in 2006 after his wife had passed away.

When the "I Am The Last Tram" exhibition was active, Ross would host and welcome visiors to MOTAT 1 every Friday.

These days he still interacts with visitors by driving them



Military Section's Ross Goldsworthy (left) receives the Lush Award for volunteer dedication from outgoing MOTAT Society chairman John Syme, in front of the searchlight which attracted Ross to join MOTAT more than 50 years ago.

John Tutchen photo

around the MOTAT 2 site in classic military vehicles.

Among those vehicles are a World War II Ford V8 ambulance which had served in Africa during the war, a three-ton Matador gun tractor, a WWII GMC 6 x 6 truck, and a couple of Land Rovers, to name a few, he explained.

"I enjoy driving those vehicles, but nowadays I do more talking and explaining rather than the physical side of things," he said.

John Tutchen said that lately Ross had re-married, to the lovely Mem, and he still helped to restore and maintain the vehicles and equipment, and participated in weekly evening sessions at MOTAT's military workshop, passing on knowledge and information to volunteers.

Museum Director Michael Frawley is on record as saying: "Mr Goldsworthy embodies everything a MOTAT volunteer has to offer to the museum and community as a whole.

"He has been sharing his passion, knowledge and pride in New Zealand and Auckland's heritage with visitors for over 50 years."

When presenting the award, outgoing MOTAT Society president, John Syme, said that Ross was "truly an example to us all".

"Ross, we thank you for your service, to both our country and our museum, and we are delighted to present you with the Lush Award for 2018," he said