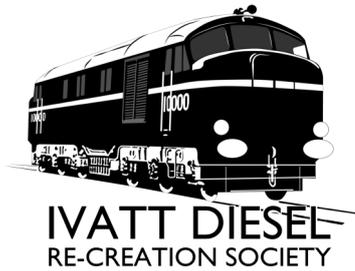


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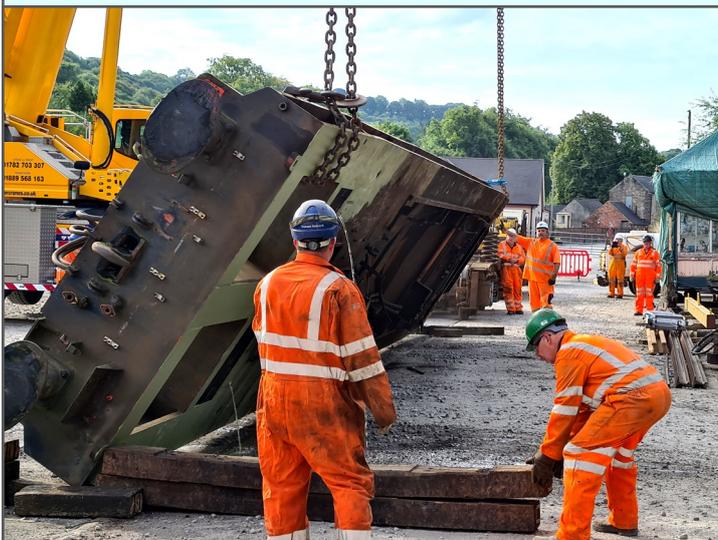


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Welcome to Issue 11 of ICON.

This year has seen a lot of development, with some very visual progress to be seen. There is much more to come. Our latest appeal is for tyre turning, a vital stage in the process to create the rolling chassis. That work will use every penny we can raise. The more, the faster we can have parts fabricated or altered. There will be challenges ahead in the current financial climate, so we are most generosity of donators has enabled us to maintain momentum this year.



In this issue we focus on the 'Big Lift', the much awaited inversion of the loco chassis so we can work on its under side in preparation for matching it to the bogies.

The Autumnal period has been busy. We have obtained many new parts along with additional storage space.

There's lots going on! So much so that developments in October will be fully explained and illustrated in the next issue due around April.



Stan Fletcher 1920—2022

It is with great sadness to report that the Society President, Mr Stan Fletcher, passed away peacefully in October, aged 102.

Stan will be remembered by society members and the wider engineering community as a *gentleman engineer*. His father suggested that electrical machines were the thing of the future so Stan began studying electrical engineering at night school.



When EE and the LMS began the project to construct 10000, Stan became part of the commissioning team, although first, they had to build it! When he first saw 10000 all they had was the frame. He served out his apprenticeship doing this job. Stan continued to be a commissioning engineer for 10000/I into the 50s.

On the back of his experience with through the development of 10000 and 10001, Stan used to be invited by British Rail to speak at their courses at the School of Transport at Derby. He explained the development work being done in regard to diesel traction.

In retirement, Stan made himself known to the LMS 10000 project in its early years and soon offered the role of President. He attended a number of events and offered advice about the strengths and weaknesses of the original design. We are grateful for the opportunity to have known him and to have recorded a number of interviews with him.

Stan will be sorely missed. We offer our heartfelt condolences to his family, Jo, Sally and all the family.

Stan Fletcher, an appreciation. Michael Prince, Trustee.

Personally, I first met Stan Fletcher at the AGM of the Society at Swanwick Junction station on the 17th August 2017 when we were discussing what to do with the then moribund society. It was a turning point. Stan was there with his son Jo and seemed clearly delighted to listen to the plans.

Stan Fletcher was born 16th March 1920 and raised in Horbury in Yorkshire, the only child of a mining family. His parents encouraged him to work hard at his studies from an early age and at the start of the Second World War he was advised to continue with his studies until 1940 when he volunteered for the Navy at the start of WW2 as an electrical engineer on the ship "SS Queen of Bermuda".

Later, he completed a commissioning course in London and became an Electrical Officer in the Navy on minesweepers, mainly along the South Coast of England.

Shortly before being demobbed, a chance arose to apply for a job at English Electric on their project to build a twin locomotive unit with the London Midland and Scottish Railway. Stan was successful and became one of the electrical engineers involved in testing, monitoring, reporting and maintaining the locomotives for the next few years.

We had no idea that Stan was in the early newsreels until he sent a message to us saying he was one of the young men, in clean white overalls, marching purposefully along the platform alongside 10000, seen in the photo above.

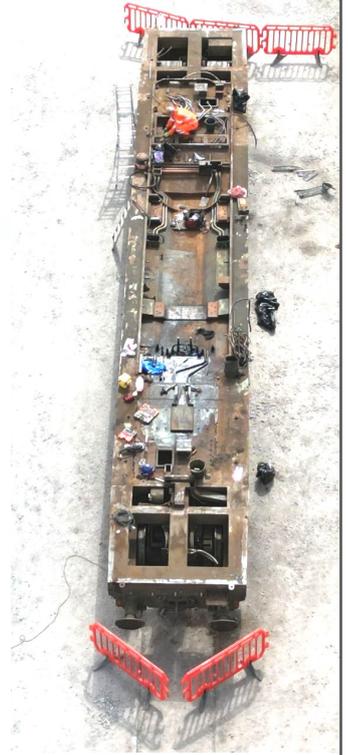
Stan progressed after these trials with the LMS to travel all over the world introducing English Electric locomotives to railways and training the staff. This saw him go as far as Sudan, Malaya, South Africa, Rhodesia, Kenya and Australia to do similar commissioning along with training staff and talks. He was out in Malaya while the LMS locos were scrapped in 1968. He found it incredulous that unique locos had been disposed of.

By 1967, Stan was Deputy Chief Engineer in the Traction Technical Service of English Electric Co. Ltd and became a Member of the Institution of Engineering and Technology.

We know Stan was immensely proud of his involvement with 10000, the introduction of English Electric locomotives and his Presidency of the IDRS and I leave the last words from Stan himself from 2020;

"If you remain focused and professional in your outlook, there will be a great engineering future that you will be able to look back on with pride."

The Big Lift



Top: a photo taken by drone by Bob Hodges, courtesy of the EVR.

Below: We hired two large cranes for the job of lifting the chassis of 58s. Here they are at the start of the operation.

Main: One of two large cranes hired for the Big Lift, seen readying bogies for lifting onto a its transportation off-site.



THE BIG LIFT - Phil Standbridge summarises the timeline...

The past 6 months have seen intensive preparatory work take place. Much of this would not be apparent to the casual observer. Here's an outline of the work undertaken, much of which is illustrated in this magazine.

April 23rd

1st traction motor removed

May 21st

2nd traction motor removed

May 28th

Remaining roof sections removed from the 58022.

Air tank in brake cubicle removed.

June 2nd

Class 58 cab at No.2 end removed and moved to workshop area, prior to being removed from site. Frame surrounding brake cubicle and electrical cubicle removed.

June 3rd

Electrical cubicle removed and moved to the workshop.

June 11th

Fuel tank lowered and removed from chassis.

June 18th

Cab at No.1 end of 58022 removed and cooler group lifted, both placed on the sturgeon wagon.

June 25th

Traction centre bolts loosened. Ballast weights added to chassis. Cab No.1 moved to workshop area and put on display.

July 2nd

Cooler group moved to workshop area.

July 30th

3rd traction motor removed from bogie 139.

August 19th

Chassis pulled down using pull lifts. Retaining cables removed, prior to the Big Lift. Chassis cleared and cleaned of debris.

August 22nd

The Big Lift.

THE BIG LIFT - Mark Langley recalls the preparation work...

It has been really good to get back to Wirksworth working on something practical after covid.

So much has been moving forward in every way but actually doing something physically helpful is fantastic. The big event was finally taking the class 58 apart which took a few days cleaning the chassis as much as possible before the separation.

The weights (*seen right*) placed on top were taken off and so we could clean things down saving mess on the ground.

The bogies were released carefully off the chassis. It rested on its bearings and springs like a boat on calm water as we were frantically working towards that Monday lift!

My part was cleaning rust and grease with a paint scraper, chisel, sweeping and a Hoover. The oil was more tricky near the engine well as it needed more in-depth degreaser treatment. *[continued on page 7]*





The cooling group was transported up to Centenary Works where it was cleaned.



It will be cut to size suitable for the new loco. Meanwhile the cabs were removed and one is displayed at our visitor area.





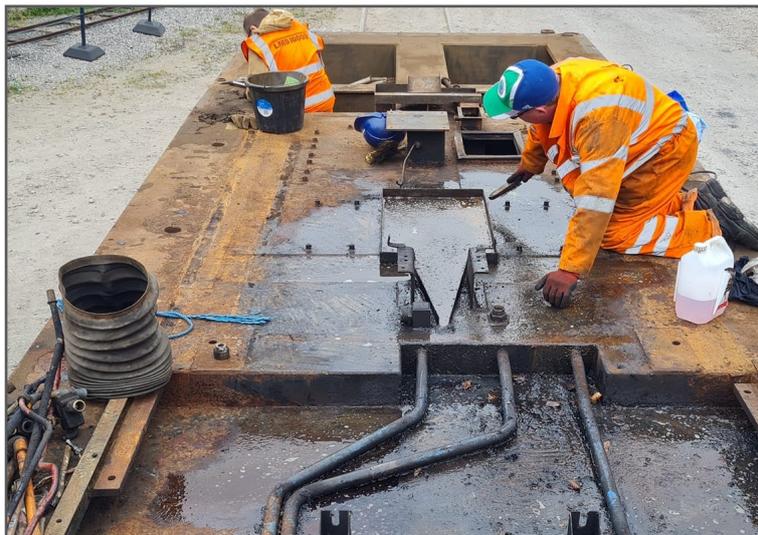
Fuel tank removal, including draining fuel.





Above: A lot of work went unseen, underneath the chassis. Here we see a volunteer engrossed in work to separate the chassis from the bogies. Once the fuel tank was removed there was a lot of space, but not so amid the bogies!

Right: Preparing the chassis took a couple of months for the engineering volunteers to complete.



The outer walkways on this chassis needed slowly chipping off as it was something as sticky as asphalt. The electrical cables were tied off and we were ready to go. I make it sound easy but the expertise of everybody involved that week made it go very smoothly!

After the lift I worked on scraping the dirt off the fuel tank and more recently cleaning parts of the traction motors and bogies. The tidying and arranging for the AGM meant the realisation that there is a lot that can be improved by cleaning and organising in preparation for painting at this stage! I haven't spent a lot of days at Wirksworth this year in the great scheme of things, but it is still amazing how much can be done and is going on with the team who have turned up. ■

If you are interested in
getting involved, please email us:

info@lms10000.co.uk or call 0755 162 1685

THE BIG LIFT - Bernard Caddy tells the story...

Arguably preparation for the big lift started two years ago when the scrapyard hulk of 58022 was sitting at Rowsley. The first big step was removing all the connections between the power unit (12 cylinder Ruston plus alternator) and the loco. Pipes for fuel and cooling, electrical cabling, and ancillaries including fire suppression that were all around were disconnected during a week of preparation, and the roof sections, side doors, and framing removed to get easy access to the power plant. The engine block was still held very firmly in its mounts. On the lift and transfer day a large crane arrived, and with a few tugs (not the maritime sort) the power unit was lifted up, out of 58022, and onto a low loader to go to our friends at IMPS, to be refurbished for maritime use.

On that same day the 58022 was brought round on a low loader from Rowsley to Wirksworth ('round' reflecting the 40 mile tour of Derbyshire that it completed to end up ten miles further north geographically).

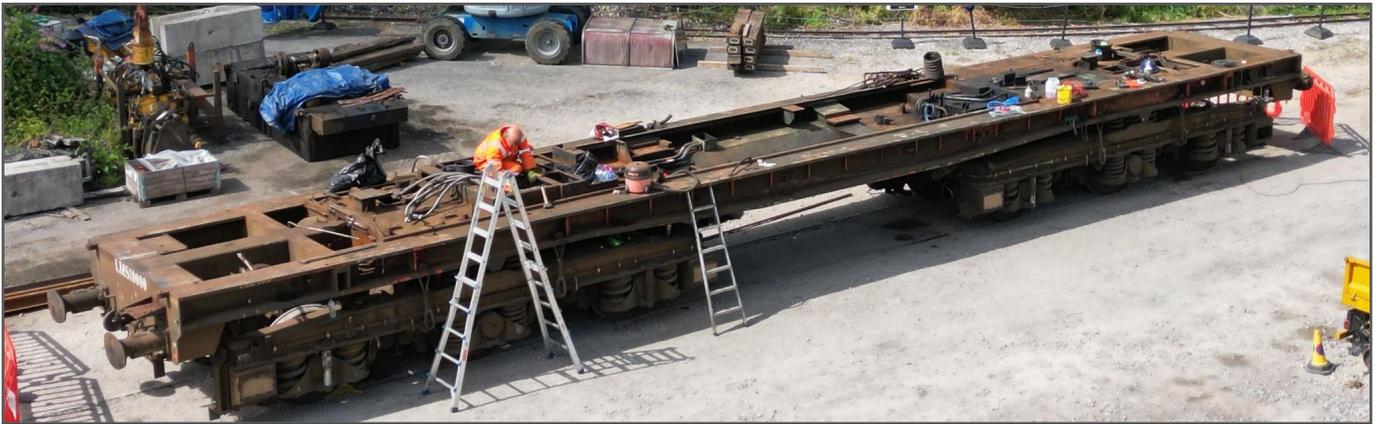
Since then it has been moved for us between Platform 3, the long siding, and the yard at Wirksworth by our friends at EVR to allow us to continue to strip the frame. A good amount of work was done last summer whilst at Platform 3, with air systems, electrical, and cooling all stripped down. Unlike a scrapyard we were seeking to collect all components, and even lengths of cabling and piping removed whole wherever possible. We also removed a lot of muck. Many years on the scrap line at Crewe and elsewhere had left signs of occupation by birds, animals, and the odd human. Rust had peeled away layers of steel, and removing parts for use on other 58s had been done crudely in places leaving old fixings and collateral damage. And of course there was the coal dust of ages ... everywhere it accumulated, particularly around the radiator elements where the fans had so effectively pulled in coal dust and packed them solid.

The final steps for the big lift started in July this year. The fuel tank had to be drained, then released and dropped down and out from under. The cabs were finally released, not just from their heavyweight fixing bolts but all the cabling and piping that tied them to the chassis, and lifted away. The cooler group frame was removed (the radiator elements were already off and stored safely). Numerous other useful components and cabling were recovered, such as the battery charging circuits that can be repurposed onto 10000. There was also one fitting-on to be done, the missing buffer was replaced while we had easy access to the frame.

As we had gradually removed equipment from the frame, the static load reduced on the springs and the bogie retaining straps became tighter and tighter with the stored energy in the suspension system. The straps could not be removed until we were sure that the lift was imminent as without them the remaining chassis would be unstable and could not be shunted.

In the final week before the lift many hours of skilled work was put in to remove the last components on the frame and release the bearings and fixings between bogies and the frame. The tiorfor winches were then used with concrete sleepers and other added weight to re compress the suspension and release the bogie straps, and then step by step remove the load and release the significant stored energy in the suspension. Also many, many barrow loads of muck were scraped off the frame and bogies so that there'd be the least possible dust and dirt in the air as the lifting happened. We even got to the point of being able to put some protective paint over part of the frame.

On the day of the lift, two large cranes arrived and were positioned at either end of the remaining chassis of 58022. The first lift was a straight upward lift of the frame off the bogies. The ease with which this happened was in many ways a reassuring anticlimax. The frame went up, the bogies stayed on the rails, no resistance, nothing tied or dangling, just those large coil springs gradually stretching out as the final loads were released. The bogies were then pulled forward from under the frame using our Sanderson telehandler. The frame was then lowered onto the ground across the rails once the bogies were out.



Before and After! Above: A drone photo of the chassis of 58022 showing work in progress to prepare it for the big event. Bob Hodgson, EVR. **Below:** After being lifted from the bogies, the chassis is seen on the ground before being turned over.

The cranes were then rigged onto one side of the frame so it lifted vertical - and with commendably little dust and dirt flying around thanks for the scrupulous cleaning earlier in the week. The lower edge was then located onto timber blocks and the crane hooks gently moved outwards so starting to tip the frame over. It was tipped over slowly, stopping periodically to check blocks were in place and the lower ledge was located so it wouldn't kick backwards. As it tipped rainwater that had collected in the box sections began to drain out (ever since the roof panels were removed we've seen rainwater pooling in unprotected spaces). The chains slipped round as it tipped and in due course, with little drama, we had the frame on the ground, inverted.

It was then rigged again for a clean horizontal lift, and the Sturgeon with cradles of timber sleepers placed over each bogie and in the middle was moved into place with the Sanderson. The frame was then brought back over the track and Sturgeon and gently lowered down and positioned onto the sleeper baulks on the wagon. The additional task for one crane was then to lift the two power bogies, plus the large coil springs, onto transport to take to the scrapyard. We had hoped to sell these but even at a price significantly below scrap value, we couldn't get a commitment to the deal, and they had to be off-site on the day. The frame, on the Sturgeon, was then sheeted over and moved back towards the head-shunt so the EVR team can move and place it safely.

There were around a dozen IDRS volunteers, all in appropriate safety gear, deployed to ensure the work area remained safe as well the practical issues of controlling the lifts and movements. We had excellent collaboration and support from our EVR colleagues as well as the professional crane crews. It was a long and concentrated day but a significant and safe success, planned and managed to best practices. The frame of 58022 is now secured and accessible on our Sturgeon for the next stages of modifications to build the rolling chassis. There is much credit to everyone involved for the safe success of the day, and particularly we should mentioned Paul who conceived and managed the whole day, Tony T who planned and controlled the safety processes, and the ever-useful Sanderson telehandler which has proved such a valuable acquisition. ■











Andrew Hoseason looks forward...

For the past ten years we have, necessarily, been in the mode of 'collecting assets' and have been very successful, as demonstrated in this issue. We still have some items on our shopping list and await the opportunity to obtain them.

Now that we have readied the chassis for the construction phase to begin, our scope of work has widened considerably. In addition to working on the chassis, we have formed a team to overhaul the Electrical Cubical. Things are on the up!

One of the first questions asked of us at galas and open days is "how long will it be till we see the loco running?" You can anticipate our considered response - it's a question of time and finance.

I've been actively involved with the Society for five years and been impressed with the way we have developed; particularly the way in which we have made friends among the professional railway and engineering communities. This has led to us receiving many hundreds of hours of advice, support and work by selfless people of goodwill, who are happy to remain anonymous and simply enjoy the fruits of their labour. I'm also impressed with the way our engineers, particularly our lead engineer Paul Etherington, have managed to guide a path, with said advice, to the most cost effective solutions, saving us around £100,000 compared to our original estimate.

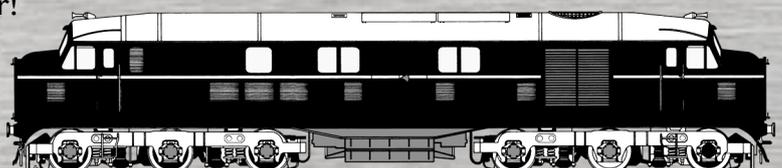
As a trustee I am aware of a lot more conversations and deals than I can share with you all here, but suffice to say I have confidence in where the project is going. It's a great thing to be part of this momentous project that is righting the wrong of those who scrapped the Twins in 1968.

At the end of this magazine we lay out the immediate projects before us, work on the chassis, electrical cubical and the bogies being tyre-turned and ultrasonically tested.

It's somewhat frustrating to have to harp on about money all the time, but honestly, that's what it comes down to. In these times of financial uncertainty, every penny that you all donate to the Society is much appreciated and speeds us along the journey.

The future is bright—it's black and silver!

*Picture by Graham B Fenn
courtesy of Colin Marsden.*



Ivatt Informer

Each month we send out an email to all members and supporters. This gives a brief update about progress during the previous month.

Make sure you get our email

Members are reminded to check their junk mail folder in case emails from us are filed there. We encourage you to add info@lms10000.co.uk to your contact list and 'safe senders' list.

Join our **Co-Co Club quarterly lottery**—it costs £5 a month by standing order, with the 1st prize winner picking up around £130.

For a membership form, contact us on 07551621685 or info@lms10000.co.uk or write to IDRS, 46 Biddick Village Centre, Washington, NE38 7NP



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2022 AGM Minutes - Saturday 8th October 2022, starting at 1pm
 Venue: The Memorial Hall, Wirksworth, DE4 4DS and live online via Youtube

Welcome and introductions (Tony Ellershaw, Chair)

31 members and 9 non-members attended.

Apologies (Andrew Hoseason, Secretary) 8 members.

Minutes of the AGM held on 02 October 2021 (Andrew Hoseason)

The minutes circulated via the previous newsletter and by email were accepted as a true record of the meeting. Proposed by Nick Cotton and Seconded by Mick Clamp. No matters were arising.

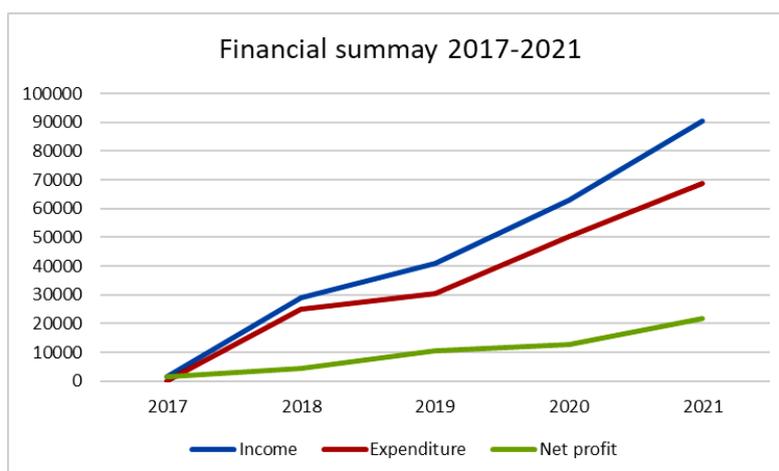
Annual Report (Tony Ellershaw)

- Tony presented a short presentation of progress during 2021 and to date. Notably we had a generator donated in order to raise funds. This was overhauled and will be sold.
- Electrical modules were obtained from DB Cargo and have been assessed, prior to testing which will take place within the next year.
- Traction motors were removed for assessment.
- We bought a Sturgeon wagon from the Dartmoor Railway and that has been in use by the railway before being used to carry the chassis of our loco.
- The class 58 was stripped gradually during the period, culminating in its chassis being lifted and turned upside down, ready for preparation to fit the ex-EM2 bogies.

Treasurer's Report (Michael Prince on behalf of Tony Brown)

Two sheets were provided in advance of the meeting. Tony has supplied the profit and loss sheet from the accountant.

	2017	2018	2019	2020	2021
Income	1506	29132	41019	62982	90479
Expenditure	0	24850	30387	50317	68769
Net profit	1506	4282	10632	12665	21710



Opening Bank Balance	29128.9	25928.07	22450.27	21375.21	28084.16	28943.53	35804.59	34493.27	41099.73	33903.93	41730.41	49887.34			
Income	Jan-21	Feb-21	Mar-21	Apr-21	May-21	Jun-21	Jul-21	Aug-21	Sep-21	Oct-21	Nov-21	Dec-21			
Donations	2017.44	2353.87	5750.39	14451.89	2369.89	11988.89	2486.93	4031.89	9322.89	10932.68	2744.89	3153.89	71605.54	71605.54	Donations
HMRC Charities				4089.83							7416.34		11506.17	11506.17	Gift Aid
IMPS								4000.00					4000.00		
Ebay/Amazon		65.49		15.93	57.11		11.64	12.22				9.37	171.76		
Paypal	1650.91	132.69	219.66	420.97		0.01					771.13		3195.37	7367.13	Sale Of Items
	3668.35	2552.05	5970.05	18978.62	2427	11988.9	2498.57	8044.11	9322.89	10932.68	10932.36	3163.26	90478.84	90478.84	

- In February we received an offer of a fully overhauled alternator from UK Rail. We did, especially given that we have a policy of having two of each major component – and the alternator offered by GBRF seemed to be a long way from being available – so we arranged to collect this and it was delivered to IMPS ready to be fitted to the I6SVT. *[Note – a week after the AGM, GBRF got in touch and their offer is very much alive and delivery of various parts will be made in November. Therefore we are now very much covered for the majority of major parts].*
- Hire of plant to move equipment about would have eaten significantly into our resources. So, a number of our volunteers clubbed in to purchase a telehandler which fulfilled all our needs. It is has been of great use to both us and the railway and has already saved us much extra expense. For instance, it moved the class 58 cabs without need for crane hire.
- We removed three traction motors from a EM2 bogie. We did the first of these as an educational display at the railway’s Diesel Gala. Visitors could see the work done and receive explanations of the work in hand.
- The 58 was positioned for stripping in June and by August we hired two large cranes and the “Big Lift” went ahead. As such, the 58 no longer exists and the chassis is now considered to be the beginnings of our new D16/I locomotive. We spent many hours arranging for this lift to be carried out in the safe manner it was.
- During the year we assisted the Heavy Tractor Group in stripping their spare class 37 loco, from which parts are being recovered for re-use. We were able to obtain a few parts.
- We became aware that the owner of 56097 was selling up and so we put in winning bids for some parts we needed including an alternator, starter motor and rectifier parts.
- Paul concluded with thanks to IMPS, UK Rail, GBRF, Heavy Tractor Group, the Class 56 Group, Class 58 Group, Nottingham Heritage Railway, the Railway Vehicle Preservation Group and the EVR, all of whom have provided great support and advice. Most of all we appreciate all the work done by our volunteers throughout the year, most of which goes unseen. Paul also thanked our former Chairman Mark Walker for the hard working hours he put in to put the project in the position it is in now and we wish him all the best.
We are still eager to take on more engineering volunteers.

Election of officers (Andrew Hoseason / Tony Ellershaw)

- Chair – Tony Ellershaw was accepted to be Chairman for the next year. Proposed by Nick Cotton, Seconded by Derek Payne. All in favour.
- Secretary - Andrew Hoseason was voted to continue as Secretary for another year. Proposed by Andrew Treves, Seconded by Mick Clamp, all in favour.
- Treasurer - Tony Brown was voted to be treasurer for the next year. Proposed by Andrew Hoseason, seconded by Hanson Haigh. All in favour.

Confirmation of other roles (Andrew Hoseason / Tony Ellershaw) – these are not “officer” roles as the Charity commission would see them, so no vote is required.

Bernard Caddy was appointed to continue as Co-Co Club Secretary and Gift Aid officer for the year, with Michael Prince as backup. Tony Thompson accepted the role of overseer and organiser for H&S, a role he fulfilled well during the “Big Lift”. Michael Prince will continue as assistant treasurer.

Publicity and Fundraising (Andrew Hoseason)

We have been able to obtain parts at good prices, or free. These have helped to lower the overall cost of the project. For instance, had we had to overhaul the 58 alternator this would have cost us

many thousands more than the price for the alternators just received in good condition. We have had a few articles and adverts in the railway press. These are placed when we have news to share. We try to put adverts into issues which we have news to share. Adverts cost quite a bit, but we do tend to get at least twice back. Added to which, the value of publicity and public awareness, resulting from adverts, is worthwhile.

Moving forward (Paul Etherington)

We do need to spread delegation of jobs. As we begin refurbishment and construction work, there will be a lot of opportunities for new volunteers to get involved and therefore speed up completion of the loco.

Any other business (Tony Ellershaw)

- i. Michael Prince displayed a painting he has worked on for some time and upon completion it is intended to give prints to early donors. The painting shows the twins leaving Euston.
- ii. Andrew Hoseason explained that in 2018 we undertook to offer early donors with unique opportunities to view our equipment. However at that time the equipment was housed by third parties and we did not have the opportunity to arrange viewings. Then there was Covid. So we are aware that we still owe early donors such a unique opportunity. After discussion in the meeting, it was suggested that we could inquire of IMPS whether we could bring a small group there. We will explore that option.

Date of next meeting. Saturday 7th October 2023. Venue to be confirmed. We held this years meeting at Wirksworth following a suggestion that it might prove welcome, along with the opportunity to visit the Workshop. However, some members were unable to attend and would have been able to do so had the venue been in Derby. There was also a suggestion that the AGM could be combined with a ride inside a reserved carriage on an EVR service train. A straw poll of those within the room showed 15 in favour of Derby and 16 in favour of Wirksworth. However more members online were in favour of Derby.

Open forum questions

Q1 – will our information stand be attending the GWSR again? Yes, we would intend to do so. We had intended to visit the Spa Valley too, but Covid stopped that. We are reviewing where we attend galas with our information stand. Fresh volunteers at this years GWSR were very much appreciated. Q2 – Hanson Haigh asked whether IMPS are happy with our items being housed inside their building. Paul said yes.

Nick Cotton expressed a vote of thanks to the trustees and all actively involved in the project.

Getting involved

We are grateful for the help provided by members to man our information stand at the G&WSR Diesel Gala. There are more such opportunities, together with a range of jobs within the workshop. To get involved, please email us info@lms10000.co.uk or call 0755 162 1685





In the Works

Following on from work reported in the previous issue of ICON, we removed the three traction motors from bogie 139 and wrapped all exposed surfaces. To protect them from the weather

Rather than scrap metalwork from the 58, we were able to re-use parts.

Left: Bogie 140 was fitted with an improvised roof in the form of the roof sections of 58022.

Bottom left and right: On the lower left of the opposite page, we see a bench made from a class 58 frame seen being cut up.

Below: The containers are being gradually fitted out with shelving prior to the security system being extended to include them.



Our Useful Telehandler



The telehandler was used to strip the 58, place the cab in our viewing area, locate the containers to the rear of the workshop, move traction motors and lockers.

We cleaned the workshop and created narrow walkways around its parking area.



BREAKING NEWS

Andrew Hoseason

The pace of work increased again after the AGM. First of all, we formed the **Electrical Cubical Team** and are receiving direction from an industry expert who has already provided many hours of guidance and design approval. While cleaning, restoring and preparing the cabinet, we will retain all wiring for identification purposes.



The apparatus inside the cubical has to be methodically documented, disconnected leaving the termination wiring behind. We also have to remove all termination blocks and overhaul them with new zinc plated bolts. The work area at the rear of the workshop is being reorganised to facilitate this activity, including reinforced plating over the inspection pit.

In October the battery charger cabinet was completed (above). Pictures of this can be found in ICON 10 page 7. This is a vital first step for the Electrical Cubical project. Final painting and fitting out will hopefully take place over the winter.



In August we collected parts, bought in partnership with IMPS, who need parts from the former class 56 power unit, as do we.

Above, we see the first load of heavy components being transported to IMPS for storage and recovery.

Right: A focus on one of the alternators obtained for use/spares.



Left: Teamwork! Moving a compressor into the workshop. **Right:** Storage lockers obtained in October. Are you up for the challenge of restoring them?



But... there's more!

The President's Centenary Appeal was set up to fund purchase and movement of equipment when it became available at short notice. A prime example of this arose in October when we were advised that ProgressRail were ready to hand over **equipment donated by GBRF** seen arriving, at the top of the next page. The date for collection was set by ProgressRail and we had to act fast to arrange a large crane at our end.

The donor locomotive is 56104 which is being reconstructed into a class 69 loco.

Inset left: 56104 at Oakley, deputising for a DCR loco. Ian Saunders.

Inset right: The 56 seen on the Nene Valley in 2015. Ian Sharman.

Below: 56104 at Barrow upon Soar in 2015. Geoff Griffiths.

All this happened so quickly and just when this magazine was due to go to print. So we intend to give more details in the next issue, in Spring or early Summer. Meanwhile you can find news in our 'Ivatt Informer' monthly emails, our website news blog and in our Facebook group.



Such a rush of opportunities to obtain equipment has depleted our bank account just as much as it has filled Centenary Works! The main items remaining on our shopping list are class 37 braking gear and EM2 parts. We will have to strengthen the bogie suspension to take the additional weight carried in a diesel loco. Then there is wiring and bodywork. Plenty to keep us busy!



Over the last couple of pages you will see mention of future fundraising plans. The more we can raise, the quicker 10000 becomes a working loco. Please do get in touch if you have fundraising proposals, or would like to sponsor parts.

Publicity - a Powerpoint show for members to use

We have an audio visual presentation for groups, based on that given to date by Tony Ellershaw. If you have the opportunity to share the story of 10000 with enthusiasts or the general public, we can forward this to you and provide support if required. Please contact us on 07551621685, email info@LMS10000.co.uk or write to us at IDRS, 46 Biddick Village Centre, Washington, NE38 7NP.

What is next?



The ultimate aim: re-creating this! 10001 at Derby in 1951—CIKF Photo Archive—courtesy of Clive Field

As we continue the process toward creating the Rolling Chassis for the new 10000, one of the next key aims is to amend the chassis so that it fits the bogies. It is now ready for this work to be done, subject to volunteer availability and funding.

But more immediately, we have tyre turning and ultrasonic tests. We are intending to send bogie 139 (the one now without traction motors in it) to have this work carried out in January.

What is tyre turning?

The profile of a wheel tyre is quite important in keeping the vehicle on the rails. The basic tyre tread has a slight cone shape to it. This gives the wheelset (two wheels and an axle) a self steering property. As this wears, it becomes hollow and starts to lose this self steering. Equally as important is the radius where the flange meets the tread and the angle of the flange. If this is allowed to wear there is a danger that the wheel will climb over the rail on curves, leading to a derailment. Flange wear is much harder to correct than tread wear as, to restore the correct profile, it may be necessary to remove a substantial amount of the tyre metal. Another important factor to consider is that both wheels on an axle are the same diameter to within a very close tolerance. Thus, you might have a wheel tyre that is unworn and as good as new but the tyre has to be turned because an associated tyre is worn beyond its allowable limits. Tyre turning used to involve removing the wheelsets from a loco and mounting them in a large specially designed wheel lathe. It often still does although, nowadays, many depots/workshops have computer controlled ground lathes which can turn the correct wheel profile without removing the wheelset.



What is Ultrasonic testing?

Ultrasonic testing is a form of non-destructive testing techniques based on the propagation of ultrasonic waves in the object or material tested. An ultrasonic wave is a mechanical vibration or pressure wave similar to audible sound, but with a much higher vibration frequency. In most common applications, very short ultrasonic pulse-waves with centre frequencies ranging from 0.1-15 MHz, and occasionally up to 50 MHz, are transmitted into materials to detect surface flaws, such as cracks, seams. The method can also identify internal flaws such as voids or inclusions of foreign material. A common example is ultrasonic thickness measurement, which tests the thickness of the test object, for example, to monitor pipework corrosion.

Ultrasonic testing is often performed on steel and other metals and alloys, though it can also be used on concrete, wood and composites, albeit with less resolution. It is used in many industries including steel and aluminium construction, metallurgy, manufacturing, aerospace, automotive and other transportation sectors.

How much will turning and testing cost?

£300 per wheel, plus transport and around £600 for VAT

So, for one bogie that's around £3,500 including transport costs there and back.

SPONSOR A TYRE — £300

Each sponsor will receive a certificate of appreciation and their donation will also qualify toward their 'Benefits for donors' (see *ICON 7 page 20*, or our website www.LMS10000.co.uk for details of that scheme).

£10,000 FOR 10000

We will be announcing further opportunities to finance the construction of our loco, Britain's third class D16/I locomotive. One such scheme will focus on large donations, similar to that received to refurbish the Electrical Cabinet. **To make your mark upon our locomotive's development**, please contact us on 07551621685, email info@LMS10000.co.uk or write to us at IDRS, 46 Biddick Village Centre, Washington, NE38 7NP.