

"Rebuilding the past for the future"





The Project 22 Journal

Summer 2016

Issue: D6301



Journal Overview



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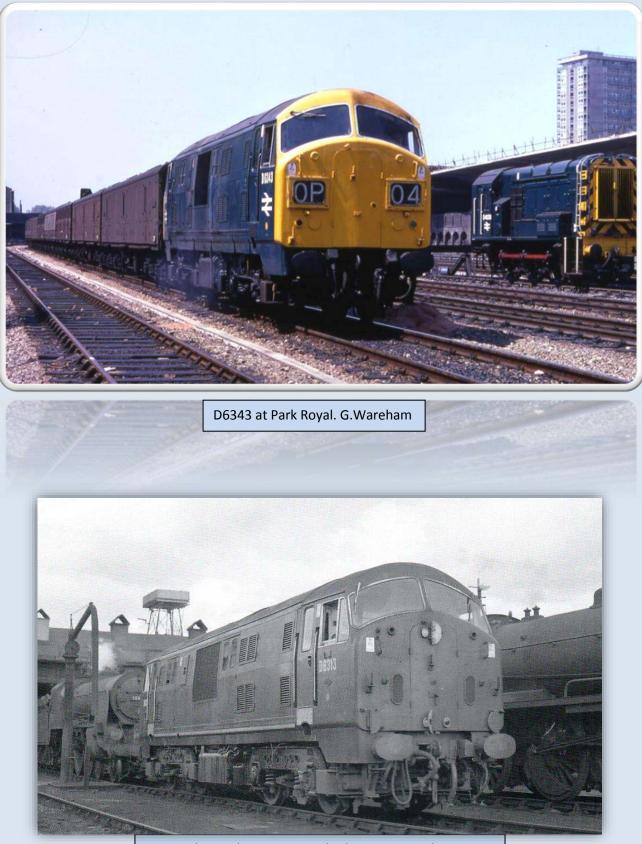
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Front Cover: D6301 Laira shed 24-6-67 - photo copyrighted to C.H.S. OWEN





D6313 Plymouth Laira steam shed. June 1963. Alan Curtis



Welcome

This issue is dedicated to D6301, second of the pilot scheme engines. Delivered new to Swindon in December 1959 and ending its short life at Cohens in Swansea in 1968, the first of the class to be withdrawn.

There is a huge interest in these small very versatile engines, plagued with problems in the early years, which gave them the reputation as un-reliable. There are many stories to be told about the Class 22s, offering many different varied points of view. No matter what the reputation or legacy they left, we are determined to find out for ourselves.

It's or objective to learn the lessons taught by those who came before us. The Class 22 was finished before it really had chance to start, withdrawn as non-standard after approximately 10 years in service. And, as suggested by a member, we won't be building the loco and leaving it in the sidings at a gala to represent how most people saw or remembered them: Failed! Awaiting a Swindon fitter!!

Project 22 represents many, many days and weeks of work gathering data, planning, researching, raising awareness and trying to raise funds. And always in the knowledge that this is just the beginning of a fantastic project, that will stand alongside engineering projects such as "The Baby Deltic Project" and the "LMS Patriot Group", all working towards reproducing a lost prototype early diesel. Using different methods to achieve their ultimate objectives, all groups are dependent a very high level of engineering skill.

We are on the right track, though many years behind the other groups and concentrating on a totally new concept, a new build option rather than the utilization of a donor locomotive.

Through the pages of "Lister", we hope to share our journey with you, the good, the bad and the ugly. We pride ourselves on being honest and realistic. We don't have all of the answers yet; we don't even have the questions in some areas of the projects. We are concentrating on the preparation and the understanding of the long term strategy we have to employ to move forward.



Every little step forward is victory and we get very excited and celebrate this, where every knock back is expected and learned from.

Richard Benyon Business Manager







Most Frequently Asked Questions

What is Project 22?

A group of volunteers formed though a Facebook Group that intends to build the 59th Class 22 Locomotive using the original design and plans.

How long has Project 22 been going?

Project 22 was established in March 2014.

Who runs project 22?

Project 22 is run by a Management Committee, a Sub-committee and a number of offers and key members (Link).

Where are we based?

We don't have a specific base; we have a storage arrangement and use of workshop facilities at The Cab Yard in Bridgend South Wales. The committee meets at Derby and Reading.



Is it really possible to build a locomotive?

Yes, it is possible; it is technically feasible, the skills do exist in the UK and we are confident of finding all the components.

Where would you build it?

Good question and at this stage it is too early to say. There are options available us. We are in outline discussions with three established engineering preservation organisations in the UK.

How long will it take to build?

We have estimated a project time of 10 years from conception. Assembly is in the fourth quarter of the project. We will be dependent on the level of support we receive along the way. We need more volunteers and lots of cash please.

How much will it cost?

First estimates indicate £1.2 million.

How did you come to that figure?

Our estimates are based on figures published on the construction cost of recent steam locomotives projects.

Why build a Class 22?

We wanted to recreate a lost class of diesel locomotive and the Class 22 offered the straightest forward method of construction. When compared to the other class NBL used a fabricated shell attached to a frame, placed on a plate welded frame. The method was very similar to a steam locomotive. We also all like the look of the NBL designs. The bigger D600 were also considered as a build project. This was dismissed on a cost basis and the difficulty in sourcing twice the components.

Have you got any drawings?

This is a long and protracted mission; there are in excess of 600 drawings available. We are only able to purchase them in batches of 20 at a time. This isn't tied in tablets of stone so we are ahead of time with the purchases. It was first estimated at taking 5 years.



How do we prioritise the selection of plans?

We are collecting the drawings from 2 sources, neither having a full set, but, between them we are sure will have sufficient drawings to complete the build. We are acquiring the drawings in the same order as we will carry out the build, main frames first, followed by the bogie frames, wheel sets & cab (to assist in our mock up). This covers the 120 or so drawings we already have. The remaining drawings, some 500+, mainly deal with the rest of the superstructure and details such as piping, wiring, brackets etc. We also require the drawings for all the Swindon Modifications that we will need to apply. Main frames, cabs, bogies and wheels.

Do you have any components?

Well we have the engine and a number of cab controls as well as the buffers. We have a policy in place that planning takes president over parts, unless we are offered components that are specifically NBL.

We know you have an engine, what's the plan for it?

We own one of the few remaining NBL MAN Engines, number 220. This engine was used in a Class 22 and a number of Warships. We purchased 220 from the ELR hydraulic group; it has been in store for a number of years after being used in the marine industry after withdrawal in 1970. Current plans for the engine will be full overhaul as and when funds are available. She is currently stored safely at The Cab Yard.

Do you have a transmission and final Drive?

At present, no. We understand that many of the Voith Hydraulic Transmissions were overhauled at Swindon works and sold on for use in forestry and other machinery. There is a possibility that some might still exist in a serviceable state. We have also been in communication with Voith in regard of an unserviceable transmission in store on the continent. As far as the final drives are concerned none were saved and therefore new ones will have to be remanufactured or converted from other uses.



Where will the loco live when finished?

This will be dependent on the affiliations we create as we progress. We would like her to live with another Hydraulic Group, where we can utilise their experience. We want to see her run with other stablemate Warships, Westerns and Hymeks. We have already received many offers of interest. So, no firm decision just yet.

Why go for new build over conversion?

This was our choice as we are a new build project. The closest loco in size and weight is a Class 20. When you look closely at the re restructuring of the base frames there would be little left.

Where will you get components?

The engine and the transmission are the major components. We have the engine and are seeking a suitable Voith transmission. Many of the other components can be recovered from Class 47s or manufactured.

How will it be assembled?

There are many chapters of this story to unfold as we progress. Our current view is to place the contract for main frames and bogie frames with an engineering and welding company. These will then be transported to the assembly site. The castings for the cabs, side sections including doors, louvres and wheels will also be contracted out, and then delivered to the assembly site. The assembly work will be carried out by the engineers at the assembly site.

We have costed a number of crane lifts and locomotive moves into our model. As it may be more cost effective to take the loco for wiring or painting rather than bring contractors to our site. This will be very much dependent on the location selected.

Will it go main line?

The first answer is no. It will really depend on the finished structural designs. The structural engineers will have to consider this option but it is un-likely. We would also have to consider our pool of spare parts. When we locate the second engine and a second transmission, we may take closer at the main line option.



What colour would it be?

Initial opinion is Corporate Blue & Yellow ends, with head code boxes and number D6358. Thereafter it will be up to the membership and investors. It certainly will be green at some point.

Will it be unreliable?

There had been talk of building it without any insides and taking it to galas and leaving it in a siding with do not move sign on as failed for effect. Included in our original drawing for the 22 is a full batch of Swindon up-grade drawing. These detail many of the improvements Swindon made to the design over the 10 years of service. These will be taken into consideration. So the answer should be no, but that remains to be seen at this stage.

Were they unreliable?

Nowhere near as bad as the Enthusiast Press would have you believe, By the mid '60's they were performing at 80% plus. There were a lot of enthusiasts at the time who saw diesels in general as characterless things that were ousting their beloved steam, there are quite a few with the same attitude today. Consequently, diesel failures were reported with glee whereas steam failures were generally ignored.

Our situation is very different from that of British Railways. We will have a team of experts dealing with our loco at all times and it will be looked after in the manner in which it should be, unfortunately, BR didn't have such luxury. They ordered a fleet of type 2s Diesel Hydraulics without testing them. The D600 Warships worked well but were heavy and big compared to the D800s. The 22 was designed to be half a D600 and were intended to be coupled together, to run in pairs as a Type 4 equivalent when required. Spares have been cited as a problem with NBL closing, but, this was not the case. Voith took over Queens Park works after NBL and continued to supply engine and transmission parts for as long as BR required.

Will it be built in The Cab Yard?

No, there are no facilities here for such an operation.



What is the cab yard?

The Cab Yard is the home of The South Wales Loco Cab Preservation Group, based in Bridgend, South Wales. Project 22 and the SWLCPG have a close working relationship and share a number of interests and facilities. We have safe secure dry storage for our components and engine. There is a small workshop facility where we can restore components recovered for the Project.

Can we help?

Yes, we can only complete this project if people come along and get involved.

Why do you need more volunteers?

Most of the work we are doing is based around research, planning, fundraising, publishing, and legal and compliance, information and sales stand plus networking. We are running a small business base organisation that has to expand its scope out well further than the engineering element of building a locomotive.

What do volunteers do?

Well it's all about joining the Project 22 team. We have tasks that involve a wide range of skill, such as writing articles about Class 22s and the history, become involved with contributing to "Lister" our electronic journal. Locating components throughout, UK and abroad, we need people help with the planning, CAD design any knowledge of engineering, electrical engineering or fabrication welding. Whatever you do we can benefit from you.

How much time would I have to commit?

As much as you could commit to, an hour a week to a day a week, as long as we know it doesn't matter. There are working parties in South Wales for those interested in component restoration. We have our Merchandise & Sales Stand at Galas across the UK, this is great way to get access to locomotives and be involved with our sales team.

Could I join the Committee?

Certainly, we have management-committee, sub-committee, officers and advisers. These are only categorized by the amount of input and involvement you



are able to commit. You can be accepted to any category if you have some time to spare.

How often do you meet?

The committee are in daily contact using a specific Facebook group. We meet as required but at least 4 meeting a year, plus Galas and working parties

Why become a member? The main reason is to support Project 22.

What types of membership are available?

We have a number of options:

Basic member: just register on line and receive Lister and any P22 updates to your inbox.

Standard membership: £15.00 a year, this makes you a voting member, you will be invited to the AGM, receive discount on all merchandise, access the members' only area on website.

Investor: Donate £10 and upwards per month, gives you free Standard membership and access to the 6 monthly reward draw, and receive shares when the loco is completed.

Why invest, what would that give me?

Making a monthly donation is the best way forward for Project 22. We need to attract as many people as possible to this scheme. As an investor your donation is held in a build account. When the loco is completed all of your donation money will be transferred into on transferable shares. As an investor you will be placed in a draw for a reward, In December 2015 the reward was a cab ride in a class 66 locomotive mainline for 5 hrs. with GBRf.

There also other privileges for the future when the loco is completed, including access and cab rides.



Where does the invested money go?

We hold a community business account with HSBC in Bridgend, South Wales. 90% of all invested money is held in a separate account and only used for the locomotive design and construction. If the project fails to continue any funds left in this account can be returned equally or donated to another Diesel Hydraulic group in the UK.

Who is 'The Phoenix Engineering Company Ltd'?

This is Project 22s trading company, currently dormant.

What is the legal position of project 22?

Project 22: This is our shortened name and the name of the original Facebook Group. Our official entity is: **The Project Class 22 Society**. We are a mutual society governed by the rules of our constitution.

Do you have a formal business plan?

We have an interim business plan that outlines our aims and objectives and formalizes our strategy for build of this locomotive. It is available to Standard members, or by request.

What other plans are in place?

We have a set of procedure manuals and a business plan and action strategy document. This is a work instruction for the committee to keep track of actions and tasks.

How do you keep up interest in the Project?

It's difficult; there is a lot of background work being carried out at project 22. We've now released our Journal "Lister" this is becoming everything Class22, not just our projects and

appeals but a lot of pictures and historic dates and stories. We need to expand this to include other Hydraulic preservation groups. We need to expand the free subscribers and those who can contribute. We will be adding a Model Zone section as well. There is also a good following on Facebook and our website will soon start sharing updates as well.



You will often see the Project 22 on tour headboard on main line trains and preserved lines, we attend a number of galas this and the Merchandise and information stand.

How will you raise the money?

Phase 1: Memberships, Publications, Merchandise and Investors. This first phase has funded the engine, and components purchase as well as covering the cost of the stand and administration equipment.

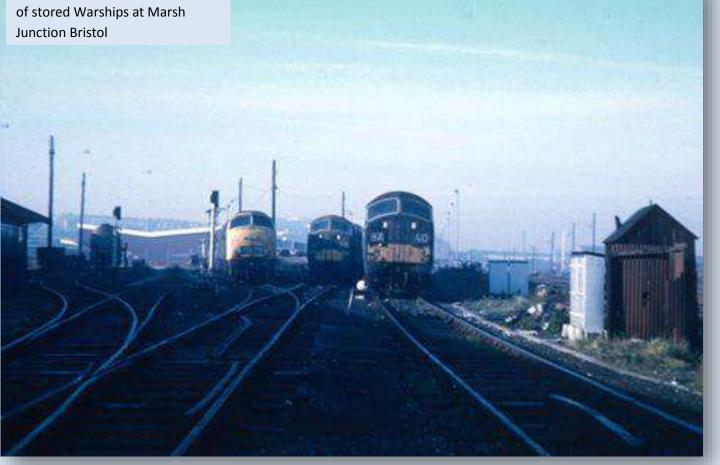
Phase 2: Attracting patrons to the Project. These are individuals with influence and experience in gaining and providing funding. We are also looking at income streams with advertising and producing interesting publications, both printed and electronic.

Phase 3: Grant funding and sponsorship and increases in the business income streams.





Phil Bridwell's fascinating photo of stored Warships at Marsh





D6351 Didcot 1660s. Patrick Kelly



D6326 at Paddington spring 64. Keith Sanders





Activity/News

HRA & Charitable Status

It's certainly been busy so far this year, working to broaden the structures of Project 22. We have joined the HRA (Heritage Railway Association) This is a great opportunity for us to gain some urgently need advice and support, specifically targeted at Charitable Status. Work will start on this in earnest in September 2016, as we prepare the ground work for our application. This will change the structure of Project 22 dramatically. There are many advantages to becoming a CIO (Charitable Incorporated Organization) and a greater responsibility. This is something that we couldn't have considered 12 months ago. We will add further detail on this as we progress.

New Website: www.class22newbuild.co.uk

Hopefully by now you will be aware of our new website? We have been disappointed on a number of occasions since the project was started, in trying to create a good website. We decided in January, that we had to invest some funds in getting it done properly and training members of the Committee to keep it up-to-date and to have an input into the building of the site. This is now functioning well and will expand as we add content on an ongoing basis.



Research

We have spent many hours involved with in depth research looking for components and drawings, manuals, data and photographs We are slowly building up detailed information about the Class 22 locomotive and its history. We have been contacting those who worked on the

locomotives and remember them in works and in service. This information is used in our publications and for providing a better insight into the activities of the locomotive.

Drawings and plans

We have arranged a number of trips to the National Railway Museum to search through the achieve data retained there. We have purchased all of the Swindon fabricated cab drawings to compare with the original cast drawings from NBL. These visits have been carried out by one of our members, there will be more details in the nest issue. Our collection of drawings from the ballast trust continues, there has been a lot of work with selection and cataloging the required drawing's.

CAD

We have started work transposing the original drawings to CAD files. This is long detailed process; we really are at the beginning of this project. We are looking closely at different ways to achieve this including, taking professional advice and working on CAD tutorials our self's, for the more basic requirements.

One of the things we need to do before we can manufacture anything is to extract the data for each individual plate or object and put them into a 3D CAD drawing that can be used for driving a CNC machine, from a cutter (Lager, water or other) to a lathe, milling machine or even a 3D printer.

Toward this end, I have acquired a copy of Turbo CAD to see what it's all about. I was surprised at how easy it is to start and how difficult it is to finish! There are lots of websites giving huge amounts of information, however I have found a website which supplies Tutorials. Doug Parfitt Project manager



Sales and Information Stand

We have attended a number of Galas this year, including the Severn Valley Railway, in May. The West Somerset Railway in June, The Gloucester & Warwickshire Railway, in July, and the Dean Forest Railway will be in September. We are still attracting interest from the public, and constantly learning from people we meet on the stand. Our selection of merchandise is popular, all of which is available from our online shop.

We have a great stand team, made up of Eric Curnow, Bob Hunter, David Forster, Doug Parfitt, Tim Marshall and Richard Benyon. The pictures show the stand at the SVR, with David, Tim and Bob. Also, a selection or original Class 22 components on display awaiting fitting to D6358







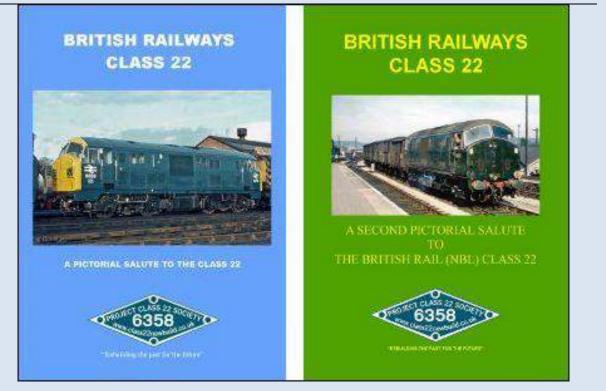








A Pictorial Salute to the Class 22 Series



The book sales have been fantastic. It all came about on the stand at the West Somerset, in June 2015. It was our first big gala, we had so many requests for a class 22 book, that we decided to get one produced, ready for the SVR gala in October 2015. The sales were good, so we moved to produce the second for 2016. I have no doubt David Forster and Dave Blake are planning the third ready for Christmas?

The content of the books is expanding to add stories and further data, and there is more to come. David is getting new pictures through, many un seen. If anyone reading this has any Class 22 pictures, we would love to hear from you and get them printed in one of our series of books.

The main point to these books is to attract people to Project 22, and a very good fund raiser as well.

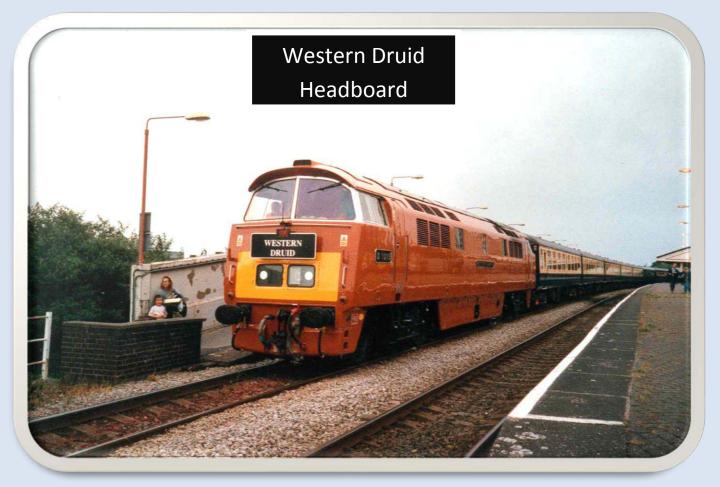
Thank you for your support

Both Books are available from our **Online shop**



Donate and Invest Prize Draw Summer 2016 – To Come:

Saturday 15th June 2002 - The Western Druid Rail Tour



On the 17th September 2016, Project 22 will be making a draw to select a winner of the Donate and Invest prize. This summer's prize is the Original Headboard carried on The Western Druid rail tour run on Saturday 15th June 2002, which marked the first Class 52 to run on the South Wales main line since The Western Enterprise in 1976. The Headboard was purchased after the rail tour to raise funds for Western Champion, at a cost of £350.00

The draw will be filmed and shown on Facebook and the website when the winner is announced. This draw is only open to monthly investors of Project 22.





DTG website



Shareholders Prize Winter 2016 - Result!

Project 22 on Tour A driver's view with GB Railfrieght Pictures by: Steve Bolton and Richard Benyon.



"Donate and Invest and win a cab ride" Steve did, he's seen above with Richard Benyon.

This is what we offered and this is what we did. We made a draw from the investors of Project 22. The investors are the people who make a monthly donation.

The draw was made in January, and Mr. Steve Bolton was the lucky winner of the cab ride. The prize was donated by GBRf, who have generously supported Project 22 from the outset. The cab ride was available on any route that GBRf operate, the winner could decide. Steve chose the British Gypsum run from Mountfield in Kent to Southampton Docks.

This service '4Y19' takes 600t of empties to Southampton and brings back 1600t of loaded wagons. The one-way trip is a little over 5 hrs. Like many things, the

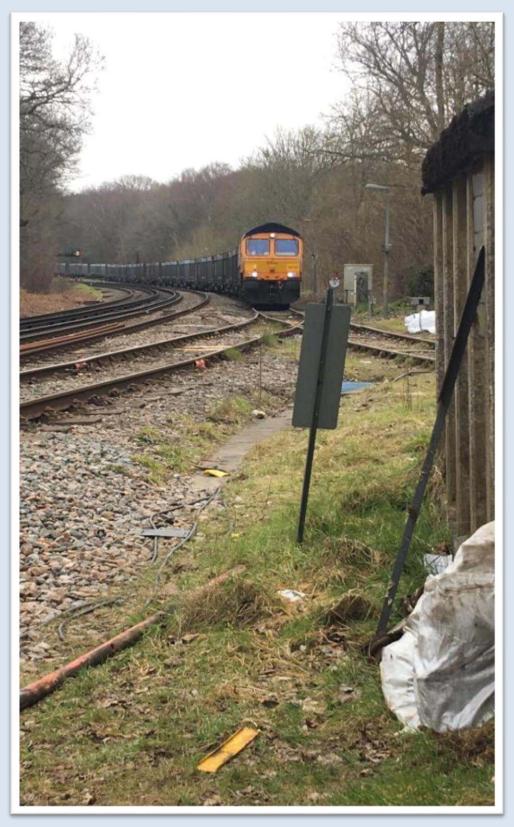


best laid plans can go astray and our trip almost went that way. Dates were discussed a number of months in advance and the 15th March 2016 was agreed. The week before travel we found out that an escort was needed from GBRf for the duration of the journey, unfortunately there wasn't anyone available to make the whole trip on the agreed date. Having already booked the trains and hotels, arranging another date would be expensive. GBRf acknowledged this and made a big effort to provide an escort, luckily for us we could stick to the original plan. We always have to understand that GBRf have a business to run and we could not be their priority. Fortunately, they came up trumps and sorted everything, so the trip could go ahead."Our plan was to be met at Battle Station, by GBRf staff. However, after a slight change of plan, we were picked up at 1130am by a taxi arranged by GBRf, which whisked us to our rendezvous with 4Y19 at Mountfield sidings.

We had an additional surprise, in that David Forster, the P22 chairman, was the dispatcher on the ground and had prepared our train that morning. This provided the opportunity to have a photo with him in front of the train." Mountfield Sidings are well off the beaten track in terms of road access, they are visible from the Tunbridge Wells to Hastings line, a few minutes after leaving Robertsbridge Station and exiting Mountfield Tunnel. The single line shunt line is visible and when the train is prepared it sits parallel with the main line. Steve and I were up nice and early, carrying a little bit of a thick head from the hotel bar the evening before, up for breakfast and a trip to Morrison's to get our food for the journey and we were away. There was no chance of us missing anything today.

We arrived to meet our train at Mountfield, to be greeted by a ground worker wondering what we were doing there, turns out he was from South Wales, Tonyrefail, a village just up the road from where I grew up and I knew his son inlaws father, we found this out in about 60 seconds, typical of the Welsh! The whole crew were fascinated that we were going on the train, they all wished us well.





'The view from David's cabin 66755 waiting for the road'



After trampling through a muddy wet yard we found our driver; Martin, who shook our hands and welcomed us warmly. In the background some 100 yards down the siding we could hear 66755 ticking over nicely. We were also met by Ben our escort and David, and had a discussion about how we were going to fit 3 of us and a driver into a Class 66 cab! 66755 is only fitted with a very basic small and hard pull down second man's seat. After a short photo opportunity with our "Project 22 on Tour" headboard fitted, we climbed aboard while David went to the cabin to dispatch us.

We all fitted in the cab, just about, me on a camping stool that I had brought, Steve behind me looking over my shoulder in the second man's seat and Ben standing, which he did for the whole journey, good bloke! Martin advised us we could ask any questions and talk to him but only on green lights, not on ambers or reds.

Our route to Southampton would take us from Mountfield heading to London on the Hastings line through Tunbridge Wells & Sevenoaks, to Hither Green with a 6-minute stop for a crew change. Then on through Lewisham, & Clapham Junction to Barnes, the Richmond line through Feltham, Staines, Woking, Fleet, Basingstoke, Winchester and Eastleigh before rolling into Southampton Central.



'Cab view waiting for the road'



David opened the points and we were away, heading for Hither Green. It's an interesting line with all of the narrow tunnels. They have been reduced to one line now but it's clear why we had Slim Jims and narrow Hastings units. In places this is a fast line, gaining speeds up to 72 MPH. The run to Tonbridge is a good 35 minutes and from the cab you get a great view of the yard. Hither Green was reached in 1hr 10minutes. At this point there was a 6-minute stop at the station to change the driver. Martin left us and we were joined by Steve, he was in for a long day taking the train on to the docks and returning, loaded at 8.30 and back to Tonbridge by 23.00. Tomorrow, Martin will have to collect the train and take it to Mountfield Sidings to repeat the process.



'Approaching Lewisham station'

We were away at 13.30, heading for London and the Southern avoiding lines, where we crawled through the built up suburbs of South East London. The cab of a freight train on the main line opens up an alternative view of life; you see every day things from a different angle. A class 66 has big wide front windows so visibility is excellent. There were deer, foxes, badgers and all sorts of birds of prey that exist in plain sight for the railway man, but are obscured from view of the man in the street. At first, I thought they had adapted to the sound of this thundering locomotive, but the high amount of road kill was evident, a lot



more than you would see on the road. We also noted the amount of line side huts still in existence, some concrete other made of traditional sleepers.

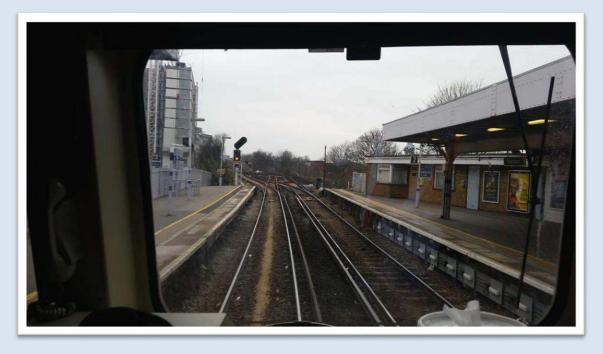
We entered the towns and suburbs and snaked through the Victorian archways and cuttings and at times high up on embankments and bridges, so we looked down at the streets. A lot of the time we were at eye level with the rooftops and the myriad of flats and apartments where everyday life goes on. Our view was not the respectable front of the home, but the rather private and personal back of homes, looking over gardens and behind fences and under bridges you see the ram shackled buildings out of view of the building inspectors. Travelling in very early spring means there are no leaves, which, in the summer hides, a multitude of sins. It's like the railway is a no man's land where you can dump anything over the fence and it's gone. Passenger trains are too fast to make out this detail. It's only really visible to the train drivers through the winter months.

Our journey proceeded slowly through the suburbs of Lewisham, Denmark Hill and on towards Clapham. As you pass through these stations some people lift





their heads with indifference, as the noisy freight train plods through the station. Our path is being hampered by the commuter trains we were following, through the city going from amber to double amber too red, coming to a standstill just as the road is clear. The 66 just takes off again, with no effort as the driver uses his route knowledge to navigate the complex geometry of tracks and signals. It really is incredible.



We were now accelerating up the inclines to meet the main lines heading out of the city at Clapham junction. There were trains coming from all directions, it seemed like organized chaos. We reached the speed limit of 15 mph and started coasting through the points on our path to the Richmond line, heading South West through Barnes. We were now 2 hours into our journey, running close to Hounslow and Heathrow Airport. One after another the 747's took off over our heads as we trundled on towards Staines at 40 mph. Again miles of houses backed onto the main line, the gardens are getting bigger now with nice lawns and tended flower beds and secure fencing. The countless abandoned and lost footballs, all makes and sizes lost forever, "once it goes over the fence it belongs to the railway" says mother, you wouldn't dare try and recover it. As we passed through Feltham station (where Steve Bolton lives) at 50 mph, waving to his missus was a short affair as she stood waving from the level crossing adjacent to the station.





At this stage we were still following the local suburban passenger trains, throwing up ambers and red lights. By the time we got to Woking Station we had picked up some good pace and we hurtled through the station, people step back on the platform and we rocked as we crossed the points 50 mph, although it felt a lot faster.



'Richmond'



Not far past Woking junction we opened up to four tracks, an up and down slow and two main lines. It was straight as far as the eye can see; full green signals and we are building up speed up to 72mph. This loco had a max speed of 75 mph, our driver constantly dropped of the throttle to hold the speed. We raced through Fleet, on through Basingstoke on through Winchester as we narrowed down to two tracks, again for our approach to Eastleigh, just after 16.00, and we were on time. We passed the busy freight yard at Eastleigh, with a number of Class 66s being prepared for an outward journey and a Colas class 70s stabled. As we filmed our journey others on the platform were filming us, we were only 12 mins away from our drop off point at Southampton Central.

At 16.17, we grabbed our bags, thanked Steve our driver and Ben our escort, who had stood for the duration of the journey, and made a quick exit from 66755, after a 5 hrs. run, it was nice to have a stretch. We did get some odd looks from the commuters as we jumped off our train. We watched as Steve accelerated away from the station heading to the docks for another load of gypsum.



'Eastleigh Yard'



At this point my guest for the trip, Steve Bolton and I parted company as he headed across the south coast towards Hastings and I waited 3 hrs. for my cheap fare back to South Wales. Steve was excellent company, I learned a lot from him.

As we wound our way through the tunnels and cuttings that lead to the platforms I cast my mind back to my last visit here in 1978, we used to come here a few times a year to see Class 71, 74s and 73s and the multitude of first generation MK 1 EMUs and DEMUs, not to mention the Crompton's. 'Nice memories of a long past era'.



As I travelled home and thought back on the day's journey, I thought of project 22 and what it's becoming. We are dedicated and focused on our task. We all agreed at the early stage that the primary goal wasn't just the end result, the journey was also very important to us. When I secured the cab ride donation, we all agreed it was better to give it back to the investors. There will be many other opportunities like this in the future. All of the Management Committee invests monthly, but we are not included in the draw. But anyone who makes a monthly contribution is included. GBRf have kindly agreed to make this prize available on an annual basis.



These prizes are a "thank you" for your continued belief and support "Making the dream a reality" -we certainly did that today.

Our thanks go to John Smith and all of the staff at GBRf for making this experience possible and for supporting Project 22.

Project 22 on Tour: Dean Forest Railway 2nd – 3rd September 2016

Link



Dean Forest Railway Diesel Gala

Dean Forest Railway

From 9.00 am until 5.00 pm

At Dean Forest Railway

Forest Road, Lydney, Gloucestershire GL15 4ET

Dean Forest Railway Diesel Gala link:

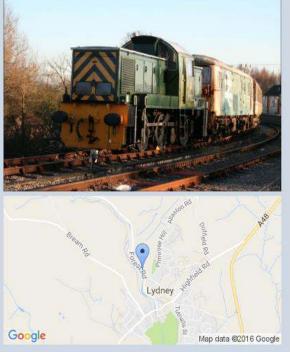
This will be our first visit to the Dean Forest Railway. Another haunt of the Class 22, deep in the Gloucestershire country side.

Our stand will have a wide range of merchandise and information on the project. Please come and see us to discuss our progress and see how you can be involved.

This is going to be good weekend of diesel activity and one day there will be a class 22 joining the ranks of preserved diesels running through the forest.

Cover photo: Paul Jones

Download Event to Calendar





Model Zone

A summary of Class 22 locomotive models that have been manufactured in various scales. By Bob Hunter.

It is only in the last few years that any ready to run models of the NBL Class 22 have been available. This is probably due to the fact that the class had a relatively short life span on British Railways being built between 1958 and 1962, the class becoming extinct by the end of 1972 and so was rather overlooked by the major British model railway manufacturers. There were however, a few resin and white metal kits available from specialist suppliers. One of these, Fred Phipps Model, kicking off a new era in Class 22 models.

In the U.K. there are four main scales manufactured. N Gauge, roughly 2mm to the foot, OO Gauge, 4mm to the foot, O Gauge, 7mm to the foot and U.K. Gauge One, 10mm to the foot.



However, internationally there are more gauges Z Gauge, S Gauge, HO Gauge and Gauge One 1/32, the latter two being more accurate to the track width, for example HO runs on OO width track, but is more correct at 3.5mm to the foot and likewise 1/32 is the correct size for the Gauge One 45mm width track, unlike 10mm which is too big. There are also larger gauges, Gauge Three, 5-inch gauge and the larger more model engineering gauges.

Gauge One is known as the 'Premier Gauge' in some circles. Traditionally, in the U.K, locomotives and stock have been built to 10mm to the foot, but over the last twenty years or so 1/32 has become more popular with most output now in this scale. One such manufacturer in this scale is Fred Phipps Models.

Fred had been fascinated by the NBL Class 22 locomotives since childhood and had spent fifteen or so years attempting to create the perfect Class 22 in 1/32. I had written an article, published in The British Railway Modeler magazine in 1994 on how to convert a Hornby Class 21/29 into a Class 22, Fred had seen this and contacted me, by coincidence he lived close by and visited me, bringing over the Class 22 cab he had created. I was bowled over by the accuracy and quality of work. By this time, I had got to know a couple of diesel-hydraulic fans Rob Mabbett and Steve Harrod who had built an 'OO' Gauge layout called 'Somerford' which was an homage to all things diesel-hydraulic on the Western Region of British Railways. I introduced Fred to them and they were also impressed by Fred's work and we set about persuading Fred to manufacture his Class 22 as a kit. This he did and it sold well, with many people turning to Gauge One, 1/32. Both Rob and Steve set about building excellent model railway layouts to display their models of Fred's Class 22 and later the D800 Warship, since then he has gone on to produce a kit of the D600 Warship.



The Fred Phipps Class 22 is considered by many to be the marker to set the standard for models of the class. The kit comes with a one-piece resin body, nickel-silver etches for the chassis, body side grilles and cab interiors, white metal bogie sides and brass castings for buffers and other details. Motors and gears are required and specially designed transfers are also available as are axles with the eleven spoked wheels. Google 'Fred Phipps Models' for more details.

The only ready to run models of the Class 22 are manufactured by Dapol in both 'N' Gauge and 'OO' Gauge. Both of these superb models are based on Fred's original 1/32nd model and Dapol liaised with him before the models went into production.

The Dapol 'OO' Gauge Class 22.

This is a superb model, manufactured to modern standards, incorporating directional lighting, spoked wheels and is DDC ready. They have even included separate valences to be attached to the body, this is for those wishing to have some valences missing, which was quite a common occurrence on the real locos. The model has been produced in a variety of liveries and styles. For example, all over B.R. Green with grey roof without headcode panels, as built. Also, B.R. Green, grey roof and yellow warning panels and headcode panels and B.R. Blue with full yellow ends and headcode panels.

The Dapol 'N' Gauge Class 22.

A real work of art in miniature, the model comes with DCC chip installed, directional lighting, also spoked wheels, but with a one-piece body including all the valences. As with the 'OO' version the loco comes in a variety of liveries and styles.



Other known models of the Class 22 over the years are as follows:

'OO' Gauge.

Silver Fox Models produced a resin bodied 'OO' Gauge kit.

'O' Gauge.

MTK produced a white metal kit many years ago.

Steve Beatty produced a resin bodied kit.

JLTRT released their 'O' Gauge model of a class 22 recently.

5-inch Gauge.

Rob Fern started to build a 5-inch Gauge version of the Class 22, and the last I heard he had produced resin cabs for the project.

Three model railway layouts that feature 1/32 Class 22's are my 'Hatherleigh Junction' based on North Devon's Torrington line in the 1960's, Rob Mabbett's loco depot, based on Exeter St David's roofless stabling point and Steve Harrod's 'Worcester Road' a Western Region diesel depot in 1970.



The following gallery of photos are of a selection of 'Fred Phipps Models' Gauge One, 1/32nd kits bought and built by various model makers.



Inside the fabulous 'Worcester Road' Western Region depot inspired by Gloucester Horton Road circa 1970, built by Steve Harrod, we see D6331 and D838 'Rapid'. D6331 was one of only two Class 22's painted B.R. green with full yellow ends, carried from 1969, the other being D6312. D6331 was out shedded to Horton Road from its Home Depot of Bristol Bath Road and was also notable for having rather big repair plates on its 'A' end nose, these being quite crudely applied with a large number of rivets, as expertly captured by Steve.





Andrew Vines' superb model of D6318, modelled as it would have been in 1969, pictured in natural sun light bringing out all the detail, including the eleven spoked wheels and weathering.





Rob Mabbett's very impressive model of Bristol Bath Road's D6320, unofficially named 'Lister' on one side only, perhaps by staff at Gloucester Horton Road shed where she was often to be found in 1969/1970. Note Rob's beautiful rendition of the Lister nameplate below the B.R. crest. 'Lister' of course is now the name of the Class 22 Project Journal. Note the missing valence and staining, all prototypical of the class.





D6327 on shed at Worcester Road. Another of Rob Mabbett's masterpieces. D6327 was one of only four class members to be painted in this blue livery with small yellow panel. The others being D6314 and two prototypes D6300, and D6303 which is also featured in this gallery. D6327 was in later years to be found at Old Oak Common for use on ECS work out of Paddington.





D6317 one of my own loco's. One of only six class 22's to receive large headcode boxes attached high up on the nose. The others being prototype D6302 and production locomotives D6306, D6307, D6324 and D6326. Although the last two had their boxes replaced by the more conventional headcode panels around 1966/67, as did D6302.





Another of my locomotives, D6309, shunts in the station sidings on my layout 'Hatherleigh Junction'. This layout is based on a north Devon LSWR line that existed and ran between Barnstable, Torrington and Halwill Junction and one that didn't, but might have, between Torrington and Okehampton and then on to Plymouth.





Fred Phipps' very own 6330 awaiting refueling in Steve Harrod's 'Worcester Road' depot. Note the diesel fueling stand, all scratch built by Steve. 6330 was the very first Fred Phipps model Class be completed.

D6303, one of the six prototype class 22's, D6300-5. They were very much a 'Baby Warship' being basically half a D600 original 'Warship' having one MAN engine instead of two. They shared most of the same characteristics of their big brothers, including cab layout, driver's controls and multiple working

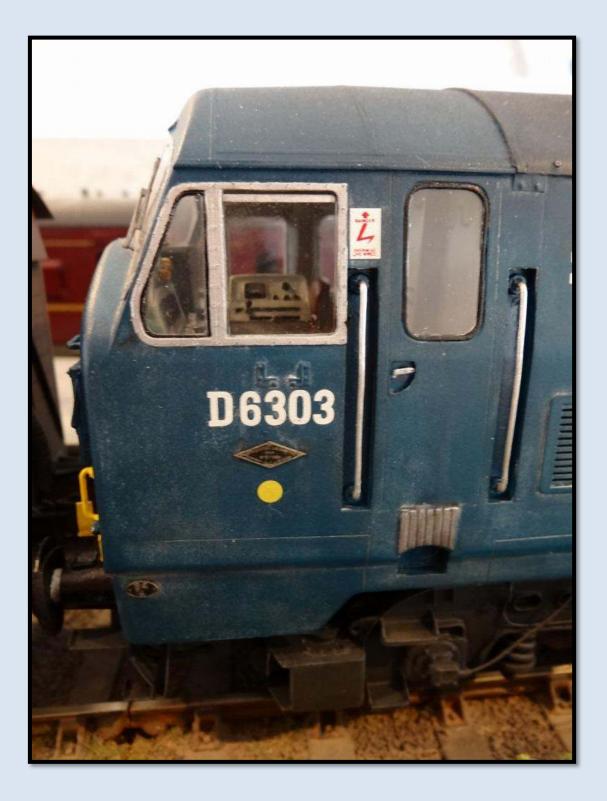


connections. The D600 style driver control equipment can be seen in my model of D6303. The production class 22's had more orthodox driving controls and

could also work in multiple with the D800 'Warships,' whereas the prototypes could only work in multiple with the D600's. D6303 was one of only four 22's to be given this livery of blue with yellow panels, all painted in 1966, the other three being D6300, D6314 and D6327 as seen earlier in this article, modelled by Rob Mabbett. I was told by Mr. Forster at the Severn Valley Diesel Gala that this blue was seven parts blue to one-part white.









The Missing NBL drawings.

By Steve Beattie

In 1962 the North British Locomotive company voluntarily went into administration. The company which had been successful in producing steam locomotives had not experienced the same success with diesel or electric propulsion and shortly afterwards most that where supplied to BR where withdrawn.

NBL not only produced mainline locomotives. They also had a considerable range of industrial diesel mechanical locomotives some of which are still in service today across the world. They also built locomotives for mainline use in South Africa, India and New Zealand as well as a number of mining locomotives. It seems that after liquidation the remnants and copy rights where bought by Barclay's Locomotive and stored until around the early 2000's when they were transferred to the Ballast Trust. This was a private archiving service who worked on behalf of Glasgow university. The drawings lay on two pallets at their Johnston Warehouse on the outskirts of Glasgow undiscovered for the next few years.





During my research into D600 in 2005, a chance phone call to Glasgow University led to an early morning flight from Stanstead to Prestwick and a meeting with the trust to appraise the drawings.

'I don't think you'll find anything of use Mr. Beattie' the late Dr. W Lind, founder of the trust seemed skeptical the collection contained anything of use.

' I have a copy of this for starters' was my reply as I opened the first role of drawings and discovered a very interesting drawing relating to the Class 16.

As we discussed the matter over a cup of tea in the small but elegant board room it was discovered they had no records or catalogue of the drawings. They simply didn't know what they had and no resources to complete one. They took some convincing but they finally agreed to allow me to catalogue the entire collection at my own expense in return for access and copies of the drawings as I required them.



And so my work began. Starting in 2006 I was to spend the next five years' holiday allowance a week at a time in the quiet warehouse, listing and logging several thousand drawings. At home I would then enter these one by one onto an excel spread sheet and then email them back to Glasgow University.



The drawings contained almost every nut and bolt of the diesel and electric locomotives built. Enough information in fact to build a complete one. Finally, on a wet morning in 2009 the final role was opened and the last batch of drawings logged. A year later the last spreadsheet was completed.

Today the collection is available to the public via Glasgow university Archive services http://www.gla.ac.uk/services/archives/ and will shortly be reduced in size.

History: Steve Beattie Developments

Back in time Gauge O modern image was the forgotten relative of Gauge O model railways. There was only one main supplier with one or two smaller producers and the range was limited. The products in some cases where over 20 years old and few used state of the art design and manufacturing techniques shared by the Steam fraternity. In terms of quality and accuracy they fell far behind OO.

Experiences building a Class 25/3 and a desire to own a Gauge O Class 24, led Steve to start investigating manufacturing his own range of kits. Steve's love of the unusual led him to deliberately stay away from the mainstream market place. His experiences of scratch building, an art learned over many years prior, and technical drawing and design skills used in his day job helped him to achieve great success.

His philosophy was simple. The kits would be accurate as possible, easy to construct and use up to date manufacturing processes. They must be cost effective to produce and above all be original. They would be consistently revised as new information came to light. Taking the idea of resin as used on Martin Finny's A4, Steve's first project was to use a one-piece resin body using his patterns but a professional manufacturer, with etch brass and white metal detail. Although many advised him against choosing the Class 24 as a project, Steve knew otherwise and took a gamble. It was an outstanding success selling out a production run expected to last five years in only 18 months. Its success changed Modern Image Gauge O overnight. Suddenly people became interested. MIGO was formed, a group dedicated to promoting Gauge O and Steve was invited to join in 1997. Balancing his day job against his hobby business Steve expanded his range. He was hindered



by a lack of investment and it is fair to say that the two kits that followed did have room for improvement. however, they still sold well, produced fine models and the big manufacturers began to take note. With a further year one quality manufacture started to produce white metal kits and a global manufacture finally produced a RTR model. It is worth noting Steve had been producing RTR models as an option since he started.

In 2002 Steve had finally managed to secure investment through selling his flat and became professional. By then he'd bought a computer which had Auto CAD design software, and the quality of the etches improved. Steve had by now made a business decision to use brass as his main media. Brass kits cost the same to develop but the production run could be as little as one loco as opposed to 50 resin bodies. It would also be easier and cheaper to correct mistakes and take up less storage room.

At that time Steve knew he could not survive on Kit sales alone. He needed a product that was simple to produce and cheap to sell. An accessory item that could be used on rival manufacturers products. He came up with the idea of cab interior kits and began to learn resin casting techniques. These kits helped Steve through the long recession while other manufacturers suffered.

In 2004 Steve was badly hurt in a serious car accident and this adversely affected his business. He carried on as long as he could but in 2006 made the decision to return to full time work. This slowed the progression of expanding his product portfolio and he lost momentum. During that time Steve tracked down missing NBL works drawings and as a volunteer began to catalogue the entire collection. This was completed in 2010.

Balancing day job and hobby business became difficult and a change of job in 2011 forced Steve to consider his future. In 2012 Steve discovered he had Chronic Fatigue Syndrome, a throwback to his car accident and seriously began to think about retiring. Also now the market place had become flooded with Modern Gauge O products and Steve knew he could not compete. In 2013 he sold off the cab interior and accessories and put the kits on the back burner.



Then in 2014 an inheritance from a family death and loss of job left Steve with an opportunity he'd never had before. Time and funds. Today Steve has invested in new equipment and typical of the man, is critically reviewing his whole range ready for 2015.

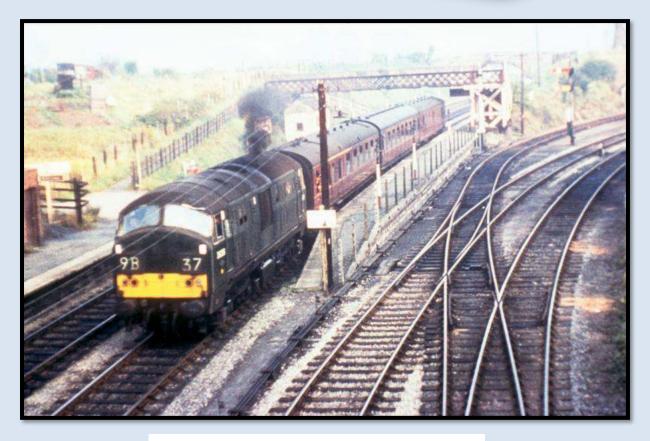


NBL/MAN Engine kit as used in D600

See SBTD products at their website: <u>http://www.sbtdevelopments.com</u>







D63xx exhaust plume (Ashton gate Bristol) Jonny777

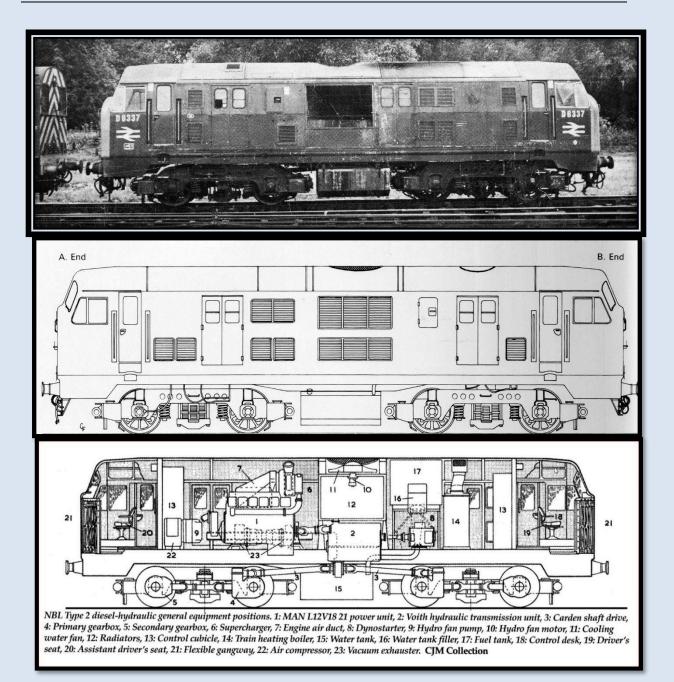


D6337 at Exeter St Davids. late 60s Fred castor





Class 22 Major Components



http://project22society.co.uk/image-map/

Using the cut out body produced by Colin Marsden. We have listed the major compounds, with an explanation how we aim to acquire or replace the part.



	Item	Description	Original	In	Drawing	Drawing	Notes
			Availabl	Stock	Availabl	In Stock	
			e		e	III Stock	
1	Engine	NBL/MAN L12V 18/21BS	Yes	Yes	Yes	N/A	At our Yard in Bridgend
2	Transmission	Voith - NBL Lt306r	Yes	No	Yes	N/A	We Know of transmissions that are available
3	Cardan Shafts (6 of)	Propeller shafts in Car technology	No	No	Yes	No	Standard off the shelf items
4	Primary Gearbox	Double reduction final drive	No	No	Not Yet	No	Original David Brown type possibly not available. Alternatives are.
5	Secondary Gearbox	Single reduction final drive	No	No	Not Yet	No	Original David Brown type possibly not available. Alternatives are
6	Supercharger	Napier Turbocharger MS200	Yes	Yes	Yes	No	At our Yard in Bridgend
7	Engine air duct	Air Inlet duct from body side filters to turbocharger	Yes	Yes	Yes	No	Fabricated
8	Dyno starter	Generator/ Starter	No	No	No	No	Alternative required, original supplier (ECC) has been shut for many years
9	Hydro Fan Pump	Pump for Hydrostatic fan drive	Yes	No	No	No	Can be acquired second hand from withdrawn locos and refurbished
10	Hydro Fan Motor	Motor for Hydrostatic fan drive	Yes	No	No	No	Can be acquired second hand from withdrawn locos and refurbished
11	Cooling Water Fan	Fan for cooler group	No	No	No	No	Can be acquired second hand from withdrawn locos and refurbished



	Item	Description	Original	In Stock	Drawing	Drawing	Notes
12	Radiators	Cooler Group	Yes	No	Yes	Yes	Might be able to get original made
13	Control Cubicle	Fabricated part - contains BBC control gear	No	No	Yes	No	Considering modern upgrade for all electrical components.
14	Train Heating Boiler	Stone Vapour OK4610 or Clayton AO 1000	No	No	No	No	Can be acquired second hand from withdrawn locos and refurbished
15	Water tank	Water tanks for Steam Heat Boiler	No	No	Yes	Yes	Fabricated
16	Water Tank Filler	Filler for Steam Heat Boiler water tanks	No	No	Yes	No	Fabricated
17	Fuel Tank	Main fuel Tank for engine and Steam Heat Boiler	No	No	Yes	No	Fabricated
18	Control Desk	Drivers Control Desk	No	No	Yes	No	Fabricated
19	Driver's Seat	Widney seats - several types used	Yes	No	Yes	No	Can be acquired second hand from withdrawn locos and refurbished
20	Assistant Drivers Seat	Widney seats - several types used	Yes	No	Yes	No	Can be acquired second hand from withdrawn locos and refurbished
21	Flexible Gangway	Corridor Connection	No	No	Yes	No	Fabricated
22	Air Compressor	Westinghouse CM38	Yes	No	No	No	Can be acquired second hand from withdrawn locos and refurbished
23	Vacuum Exhauster	Ravel FRU 5 1/4 x 10	Yes	No	No	No	Can be acquired second hand from withdrawn locos and refurbished



Class 22 Chronicles

Why were the Class 22's built in the fashion that they were?

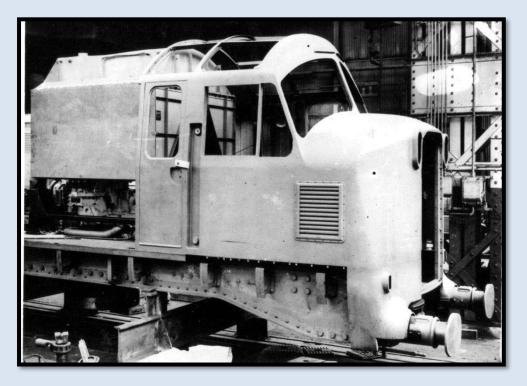
The production batch of the Class 22 were the end result of experience in designing and building the D600 Warships, the Pilot scheme 22's and the Pilot scheme 21's.



To understand the reasoning, we must look back to the situation when NBL started to design the D600's and the Pilot scheme 22's which was back in 1952 – 53. At that time, NBL understood that they must get into diesel manufacture in a big way and that to do that there were several necessities. We must remember that NBL had been selling diesels of up to 800hp successfully to railways abroad for a few years at this point using Paxman engines and GEC electric transmissions. The main thrust was to get mainline locomotives onto British Railways where they could be seen by other operators worldwide and hence draw more orders.



It was clear that the way to go was to bring as much as possible in house. This was driven by the fact that at the time, Paxman, NBL's preferred engine supplier, didn't make an engine of sufficient horsepower to support a 2,000hp locomotive, either single or twin engine.



At that time, there were very few engines of that capacity available anywhere, English Electric had just increased theirs to 1,750hp for 10201/2 and wouldn't have 2,000hp available until 1954, in 10203. Sulzer could supply engines of the right capacity, but, were extremely heavy and expensive.

By this time, NBL already had the manufacturing rights for the Voith hydraulic transmission which were being used successfully in the 'Miner' locos that NBL built for underground working where electric transmission couldn't be used. Now, it just so happened, that Voith supplied the transmissions for railcars that the DB had put into service in Germany whose engines were supplied by MAN. These engines, the L12V 17.5/22A, were in the process of being cleared for use at 1,000hp. NBL realized that 2 of these engines plus the appropriate Voith transmissions would give them the 2,000hp that they needed for a mainline express locomotive and that they were lighter than the corresponding EE/Sulzer engines and GEC transmissions.



Therefore, NBL negotiated a deal to manufacture MAN engines. Interestingly this deal included an engine of 2,000hp, but, this came in the same category as the other 2,000hp engines, too heavy and would need a heavy electric transmission.

Having now decided on the MAN L12V 17.5/22A engine and Voith L33 transmission combination in twin form for the 2,000hp loco and singly for a 1,000hp loco, the design work could start.

At this time nearly all of NBL's experience was in steam loco's, the few diesels that they had built were similar to the American 'Switcher' type as per No. 10800 and later Class 16's. The frames on these were very much steam style in the way that they were constructed, plate riveted together. The bodies were effectively the same as the shunters being designed at the same time. As far as main line loco's were concerned, the best was those being built in America and therefore that style was the starting point for NBL, just the same as it had been for Ivatt on the LMS a few years earlier. So, we now have a design to crib from, an engine and a transmission.

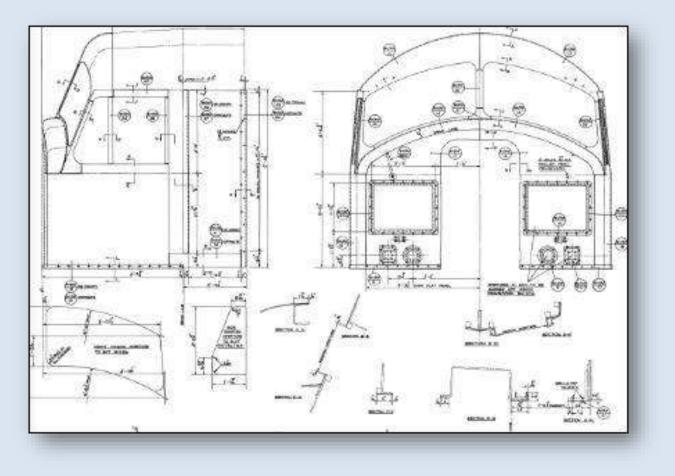
The next decision was how to manufacture the frames and body. As we have seen, the frame was to be built using steam technology as that is what the workforce was used to. The body, however, was a totally different matter. Steam engines generally didn't use much in the way of double curves, the dome cover and some of the cladding around the back of the firebox being the main parts, consequently fabricating the cabs was going to require major retraining of staff as there was an awful lot of double curvature involved. To get around this problem, it was proposed to cast the cab in Aluminum Alloy, not in one piece though, each cab consisted of 17 parts on the 22 and even more on the D600.The cabs were eventually bought in as complete units from Light Alloys Ltd and just bolted onto the frame at NBL.

The rest of the body was to be flat or single curvature alloy sheet riveted and bolted to the alloy framework which itself consisted of standard sections cut and drilled at NBL, thus re training was kept to the minimum.

Having now got the design down onto a drawing, an opportunity arose in 1954 to discuss it with a senior manager within the BTC who was convinced that the idea



of a twin engine mainline diesel of 2,000hp that was cheaper than its electric transmission equivalent was worth trying out.



During the delay between the original design and the contract being issued, several changes were made, the engine being uprated to the L12V 18/21A (S in NBL terms) of up to 1,100hp and the transmission to the L306r which could absorb the increased power. As the BR order was for 2,000hp not 2,200hp then the engines were set for 1,000hp. The NBL manufactured engines were suffixed BS, for <u>B</u>ritish Built <u>S</u>upercharged, all the engines, whatever the output being the same.

The modernization plan came out in 1955 and the 5 D600's and the 6 D6300's became part of that plan. In fact, the orders were placed before the plan was announced.



At some point, it was decided that there would be 10 Diesel electric versions of the 1,000hp locos added to the pilot scheme, presumably to compare the transmissions.



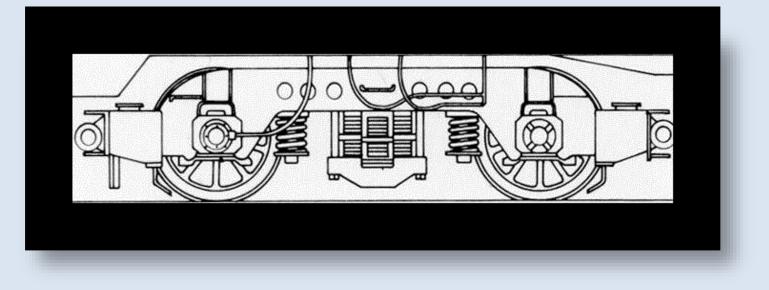
Now the original D600 and D6300 locos had frames that were mainly riveted together as the workforce was used to manufacturing steam loco frames and at the time of original design these were the workforce that were available to NBL, NBL were still building Steam loco's for South Africa and New Zealand up till the late '50's. However,

by the time that the D6100's was being designed a couple of years later, things had changed. Welding was now the preferred method of assembly, there were a lot of welders available from the shipyards that were neighbours of NBL, so the frame for these was constructed from steel plate welded together.

The Production 22's used a similar style of frame and were redesigned to take the lighter Voith LT306r transmission which would be fitted to the Class 43's at BR's request. They were also revised to be able to accommodate the Maybach MD650/Mekydro K104 combination that BR were building into the Class 42's at the time. As it turned out, BR never took advantage of this feature, something that we could perhaps do in the future.



Bogies for the 22's were a shortened version of the 6 wheel bogies under the D600's which in turn were an in house version of those used on some American loco's. The fact that they looked very similar to the LMS Ivatt bogies is that they were both cribbed from the same source.



These bogies were all fabricated just like the frames themselves, ease of manufacture more than likely being the reason as all previous bogie mounted NBL diesel and electric locos had fabricated bogies.

Why the 21's had cast bogie frames is possibly down to GEC who supplied the electric transmissions. Interestingly, the works plates of the 16's & 21's had GEC's name as well as NBL, whereas the 22's only had NBL. We have also been advised recently that the 21's were initially to have had 22 style bogies, but were changed on request of GEC.

Doug Parfitt



Membership/ Donations/Investors

We have three levels of membership in Project 22, our goals and aspirations are to move as many people along the membership route until they chose to become investors that donate monthly.

Our first level is **<u>Basic free member</u>**

All you have to do is register/Subscribe on the web site or at a gala, where ever you see the stand. You will receive regular updates and bulletins and be invited to take part in events and raffle's and asked to move up to a Standard Member at some point if you would like to support the building of a Class 22.

Our Second Level is Standard Society member

This is Charged at £15.00 per year. You are now a voting member of the society, you will receive a membership number and card along with a discount code for merchandise from the website shop. When you register on the website you will be given a password and allowed access to the member's area. Here can see the society accounts, business plans, class 22 drawings and many un published class 22 pictures.

Our third level is **Investor**

An investor makes a monthly donation to the society so becomes a basic member. The money donated is recorded and will be converted to shares in the finished locomotive on completion. Investors are all put in a draw to win the annual GBRF main line cab ride (see article above)

All these levels are important to us. The money you donate makes it possible for us to progress and expand into a positon where we can generate more income. The money we earn now is used to make more money. Our spending principle for donations is that we only buy, drawings and plans, documents and manuals. Components that are original or any items that can be traded to make more money. Running the society is funded through merchandise sales.

We need your support please consider becoming an Investor in Project 22



The Cab Yard

The Home of Project 22 and The South Wales Loco Cab Preservation Group There is a lot of activity at the yard as we prepare for a large expansion. We have now moved the cabs and workshops to a larger compound. The new compound will give us more storage room and increased workshop and storage capacity.



Project 22 use the facilities of The Cab Yard to store the engine and other components. The new expansion will provide an office and common area where meetings can be held. This will make it far easier to arrange working parties and Project 22 meetings.

The SWLCPG have expanded its collection of cabs and have obtained our first complete vehicle, Matisa Track Recording Trolley, British Railways, "Neptune" track recorder no. DX50002 of 1957 ex Civil Engineers' Donated by the National Railway Museum.









Plasser UK, have also donated two cabs from RM74 ballast cleaners





The cab and engine frames from 58008 have been purchased from Raxstar at Eastleigh works. The frame will house Project 22s engine 220





www.traincabs.co.uk



P22 appeal

We are looking for more people to come forward and help with Project 22.

Engineering Manager

To advise and manage all aspects of engineering design and build.

To manage the engine, the overhaul procedure.

Working with the Project Manager on component replacement and compatibility.

Electrical Engineer

To advise and manage the wiring of a new class 22 locomotive using current specifications

Historian/Researcher

We need someone to head up a small team of researchers looking at the history of NBL and the class 22 locomotives. We are looking for information to share in "Lister"

Modeler

Looking after Project 22 Model Zone. This will involve collating information relating to modelling Class 22s in all gauges. Also, collecting pictures of layouts that run Class 22s and posting pictures and information.

We are all volunteers, who spend as much time as we are able to progress the project.



Lister D6302 Third issue

The Third is planned for January 2017. To receive yours please just register on <u>www.class22newbuild.co.uk</u>.

We would welcome comments and of course any content you would be prepared to share and have printed here. Please send us your hydraulic locomotive pictures and stories.

Please email us on - <u>enquiries@class22newbuild.co.uk</u>

