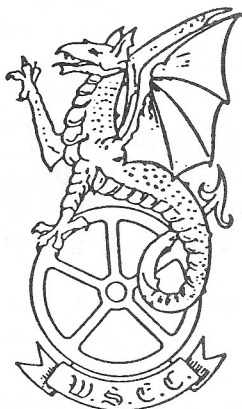


# WESSEX STATIONARY ENGINE CLUB LIMITED

## NEWSLETTER

JANUARY 1995



Please send newsletter material to:-  
Robin Lambert,  
15, Beechwood Avenue,  
FROME,  
Somerset. BA11 2AX  
Telephone 0373/463526

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### \*\*\*\*\* NOTICE TO ALL SHAREHOLDERS.

There will be an ANNUAL GENERAL MEETING at the Old Down Inn, Emborough on the 27TH FEBRUARY 1995 at 8.00 pm. Any club member who would be prepared to be elected to the committee please make your intentions known by letter to our Chairman - Brian Verrall or Secretary - Anne Carney by not later than February 10th.

### \*\*\*\*\* NOVEMBER MEETING AT THE OLD DOWN INN.

With the preliminaries over I had great pleasure in introducing our guest speakers for the evening - two gentlemen from The Dean Forest Railway Society, Mr. John White and Mr. George Locker. To some of us these two gents need no introduction, but for those who don't know them John is the Financial Director and George is Operations Manager.

With the aid of slides we were told how the Society grew from 27 members in 1970 when formed to some 600 plus as it is today.

The Dean Forest Railway first had a siding at Park End with only about 35 yards of track, this site was about 4 miles north of Norchard site which was purchased in 1974. This new site or as most of us know it was a disused coal mine and a great heap of slag has now been moved to make way for track, workshops etc. Nearly all the track at Lydney (DFR) has been laid by the Society and its volunteers and the help of the Royal Engineers on weekend exercises, leveling the ground etc. to lay the track, as track was acquired from wherever possible and as cheap as possible. There was even arrangements made to collect some from the old Somerset and Dorset line at Emborough but on arrival someone had already beaten them to it.

Over the years platforms, signal boxes as well as rolling stock have been acquired from many places in England and Wales and amassed at the centre and one special piece of equipment worth mentioning is a Cowan & Sheldon steam crane with a 45 ton lifting capacity which is used for lifting heavy locomotive parts during their restoration work at the centre.

On steam days trains run from Norchard to Lakeside, a distance of about 1½ miles and this has to cross the main road in Lydney. In the not too distant future the line will be extended and eventually will link up with British Rail.

As all track has to be laid to British Rail standard as some of British Rails engineers do their training on Dean Forest Railway track with ballast leveling machines and the like which is a crafty way of making sure all track is up to the standard required and free of charge. Going back to the Dean Forest Railway centre, as well as workshops and engine sheds there is a souvenir shop which now has an annual turnover of £200,00 and refreshment and toilet facilities and a very interesting museum which has amongst its collection a telephone exchange which is in working order and is used on steam weekends for communication around the site and lines.

Although the Dean Forest Railway is run by volunteers they have some very shrewd people who attend to the financial side of things, with insurance costing £60,000 a year and £45,000 to restore an engine they have to raise the money anyway they can. By the end of the evening we had had a very detailed account of the Dean Forest Railway and on behalf of the Wessex members and committee I thank John and George for their time and effort on our behalf.

CONT'D.

Raffle prizes went to Ray Baker - Whisky, Reg Butler - Crackers (I'm sure there is a comment here Mary!!!!), Maureen Gay - Biscuits and Ivor Yeo a very nice print of Cornish Riviera Locomotive donated by John White. This meeting had a good turn out of members, at last the committee must be getting it right.  
BRIAN VERRALL.

### B.B.'S TO THE RESCUE OF P.L.U.T.O.

(No it wasn't Bridget Bardot giving Mickey Mouses dog the kiss of life.)

Of the many thousands of visitors to Rallies, who look at and admire the Plough Engines on view, I wonder how many realise the vital part they played in the Allies invasion of Europe in 1944? If it wasn't for the efforts of about half a dozen Plough Engines, the whole scheme called 'Pluto' could well have come to grief.

Perhaps a few words about 'Pluto' would enlighten the younger members of the Club as to what Pluto was and what it did. (Mr. Chairman can ask his Dad). P.L.U.T.O. was the code name for Pipe-Line-Under-The-Ocean, and was the means whereby the Allied Armies invading Europe were kept supplied with fuel for the first few weeks of the invasion.

The cross Channel lengths of pipe were laid by two methods. The first was from 10,000 ton Liberty type Cargo Boats, and the second was from huge 40 ft. dia. Drums, called Conundrums, which were towed across the Channel, laying the pipes as they went.

The problem was, how to get the ends of the pipes ashore, as neither of the craft could get closer than the five fathom mark (about 30 ft deep) and, in some case, five fathoms was over three quarters of a mile off shore, and to get the pipes ashore meant it was going to be a very long pull. Whatever type of winching machinery was used, it had to be capable of hauling the pipe ashore and, at the same time, it had to be mobile, so that its position could be adjusted from time to time. Capstans or fixed winches wouldn't do and all available types of motor tractor were tried but none was sufficiently powerful. So! everything seemed hopeless, until the Officer in Charge remembered about some Plough Engines he had seen working, many years before and realised that those engines could well be the answer to the problem. The Ministry of Agriculture was contacted and, in a very short time, six Fowler B.B.1. Plough Engines were allocated to Force Pluto.

The first thing to be done was to convert the cable drums from "Winding Up" type to the "Surge" type, to deal with the increased length of cable. In Surge type winding, the cable is passed a few times round the winding drum, then it is hauled off and coiled down. Much the same as a Capstan on board boats. After the engines were overhauled, they were distributed to the various Pluto sites.

Two were sent to the Isle of Wight, to Sandown Bay and Thorness Bay, another went to Lepe, near the mouth of the Beaulieu River, where the pipelines were being laid across the Solent to link Sandown Bay with Fawley, another was sent to "Tweedledum" which was the code name for the Pluto site in Hengistbury Head, near Christchurch and the sixth was taken by landing craft across the Channel to Cherbourg, when Pluto had its first Continental terminal. Two sorts of pull were used. The first method was a direct pull from a moored ship and this method was used at Nacqueville Bay on the French coast. The other method entailed a pull-round of the pipe end from a pipe laid parallel to the shore. Similar types of pull were used at Hengistbury Head and both sides of the Solent. In all cases, the cable from the winding engine was taken out by boat and shackled to the pipe end (the cable was a two and a half inch wire rope) and the pull-back was commenced. It was at this stage of the operation that the Plough Engines really showed that when it comes to long, hard, heavy pulling, steam plus Fowler 16 HP B.B.1. Plough Engines have few equals.

So, to round off this short history of the Pluto Operation, here are a few facts which might be interesting to those people to whom the word 'Pluto' was just another funny word, among thousands of similar funny words that were used in the last War.

Two types of pipe were used. Steel pipe from the huge drums and electric-cable type pipes from the Liberty Ships.

The four and a half inch electric cable type pipe was about sixty three tons per mile. Seventeen pipe lines were laid in the Solent and about seven hundred miles of pipe were laid across the English Channel.

Three quarters of a million tons of petrol were supplied to the Allied Armies during the operation. In the first three weeks during our advance in Germany, a million gallons of petrol was pumped through the pipes every day.

In some cases, it needed a sustained 14 ton pull for about three quarters of a mile, to get the end of the pipe ashore.

I hope this short history of Pluto and the Plough Engine will make people aware that, even in modern times, steam, plus old fashioned machinery, can still do a very useful job.



One more interesting fact. Somewhere on the shores of the Solent there is a plaque commemorating the feat of a Plough Engine in recovering the Pluto pipes which were laid across the Solent.

ALBERT CRITTEL.

Many thanks once again Albert for another of your interesting articles, our readers may be interested to know that early last year when I was chatting to you about how difficult it was to find people to contribute towards our newsletter you offered to help me out and within a few days you had sent me a list of no less than fifty-two article titles of which I chose eight. We are all indebted to you for your kindness and look forward to seeing you on 'the field' in '95. ED.

FOR SALE - Bamford (Millers) 2½ hp open crank Stationary Engine - Class 1 condition. £600. Please contact - Graham White on 0495 213523 (Wales).

FOR SALE - Twin Seat, removed from mini bus, almost brand new, complete with headrests and seat belts, back will fold down and seat tilt forward. £30. Telephone 0373 463526.

WANTED - Old Clocking in machines and time recorders. Please contact - Graham White on 0495 213523 (Wales).

WANTED - Sign writer needed for boundary signs at Semington Rally. We also need more help on rally weekend - anyone wishing to help please contact any committee member.

WELCOME to new member Mr. R. Grazebrook of Limpley Stoke Nr. Bath.

With a New Year now upon us may I wish you all a happy and healthy '95 and you like me will no doubt be getting down to filling in some rally forms or writing requests for forms as you begin to plan your rally year. Having been reminded by Bill that we are in possession of the Selwood Rally forms and ought to be getting them off, they will be my first to send back, and talking of the Selwood Rally I see from a letter that accompanies their rally form that this year they have moved the show location to the Tropical Bird Gardens at Rode, Nr. Bath where they have a larger and more level site than at Longleat.

Please don't forget my request in last months newsletter for 1995 rally and event dates, the quicker I have them the sooner we can publish the details.

Jackie has asked me to say thank you to all who have already sent in their 1995 subscriptions, its a great help to her in keeping her books up together. Anyone who has not yet rejoined please be reminded that our year starts on January 1st and although you will still receive newsletters until the end of February your membership and insurance has expired until you pay your 1995 subscriptions.

IMPORTANT NOTICE When renewing your membership please send your remittance with your 1995 Subscription form with your name, address, telephone number and the membership you require and please sign it on the bottom, if joint membership both to sign. Thank you. JJJ.

#### ITEMS FOR SALE FROM OUR CLUB SHOP.

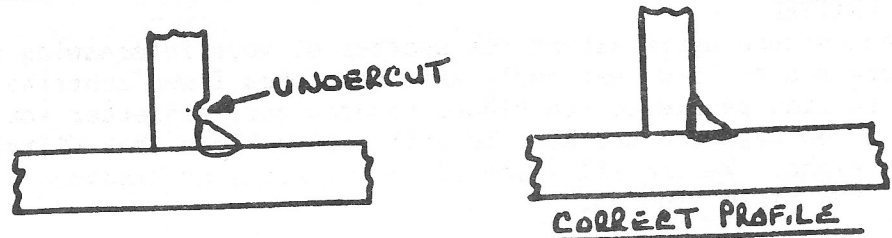
|                      |        |                     |       |
|----------------------|--------|---------------------|-------|
| Note Pads            | £1.20  | Address Books       | 85p   |
| Car Stickers         | 60p    | Tax Disc Holders    | 30p   |
| Club Badge           | £1.75  | Members Plate       | £1.50 |
| Cloth Badges         | £1.00  | Bookmark            | 65p   |
| Cider Mug            | £3.00  | Combs               | 55p   |
| Sweatshirts          | £13.00 | Key Rings           | 60p   |
| WSEC Log Sheet       | 10p    | Tee Shirts          | £5.50 |
| White Mug (Sheriton) | £1.80  | White Mug (Windsor) | £1.80 |
| Pencils              | 10p    |                     |       |

3 different types of pen 25p and 30p.

FOR ALL THE ABOVE CONTACT STEVE ROUTLEY ON 0934 822988  
OR ANY COMMITTEE MEMBER.

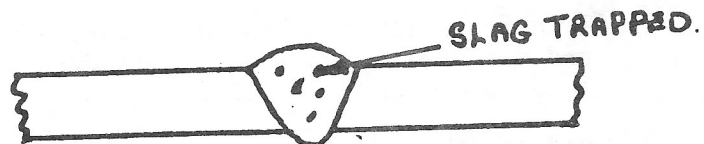
# COMMON WELD DEFECTS AND THEIR CAUSES.

## 1. UNDERCUTTING.



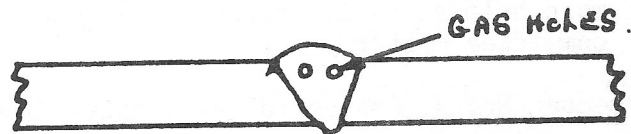
CAUSED, BY INCORRECT ANGLE OF BLOWPIPE OR ELECTRODE, EXCESS SPEED, USING TOO HIGH CURRENT OR GAS PRESSURES TOO HIGH.

## 2. SLAG INCLUSIONS.



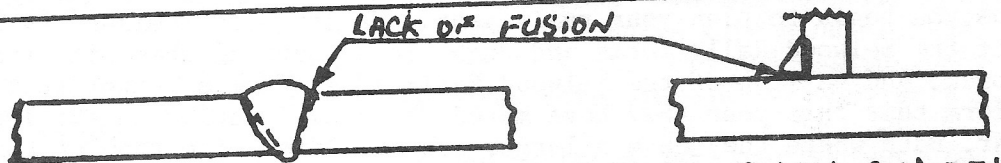
INSUFFICIENT CARE TAKEN WHEN REMOVING SLAG BETWEEN MULT RUN WELDS. INCORRECT ELECTRODE MANIPULATION WHILST WELDING

## 3. POROSITY.



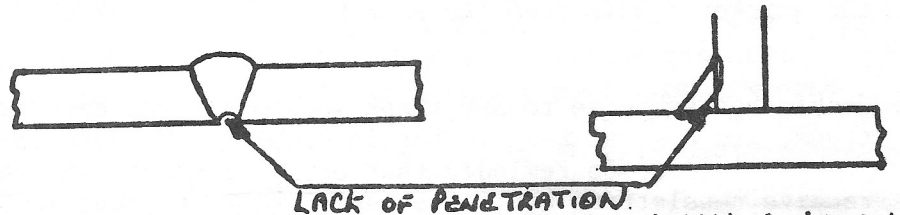
CAUSE, DAMPNESS, OIL OR GREASE ON PLATE SURFACE, DAMP ELECTRODE. INCORRECT FLAME SETTING.

## 4. LACK OF FUSION.



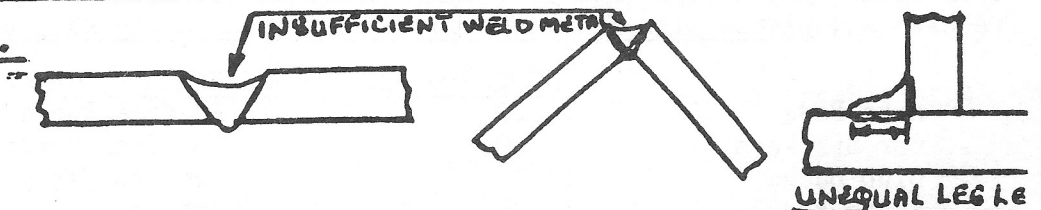
CAUSE, RATE OF TRAVEL TOO HIGH, TOO LOW CURRENT, OR TOO SMALL A NOZZLE

## 5. LACK OF PENETRATION.



CAUSE, RATE OF TRAVEL TOO HIGH, TOO LOW CURRENT, TOO SMALL A NOZZLE TOO LARGE ELECTRODE, INCORRECT EDGE PREPARATION, TOO SMALL GAP SETTING ON BUTT WELDS.

## 6. INCORRECT PROFILE.



CAUSE, INCORRECT ELECTRODE ANGLE, DITTO BLOWPIPE AND FILLER ROD, R OF TRAVEL TOO HIGH, TOO SMALL ELECTRODE AND/OR FILLER ROD.

## SUMMARY.

THE STRENGTH OF A WELDED JOINT DEPENDS ON THE ELIMINATION ALL THE ABOVE MENTIONED DEFECTS, PLUS THE QUALITY AND CONDITION OF PARENT MATERIAL, E.G SURFACE, PLUS THE HUMAN ELEMENT.

N.B. A CHAIN IS ONLY AS STRONG AS ITS WEAKEST LINK