



West Wiltshire Society of Model Engineers Newsletter

Issue No. 5 April 2019

Calendar

April

- 3rd – Annual General Meeting. 7:30pm
- 6th – Saturday Steam Up. 10am-4pm
- 14th – Open Day & Wessex Vintage Day. 10am-4:30pm
- 17th – Members Exhibition & Social Evening. 7:30pm
- 20th – Saturday Steam Up. 10am-4pm

May

- 4th – Saturday Steam Up. 10am-4pm
- 5th – Open Day. 1pm-4pm
- 18th – Saturday Steam Up. 10am-4pm



News

AGM & Membership Renewal

The Annual General Meeting of the WWSME is being held on 3rd April at 7:30pm in the club house. As well as the usual reports and election of officers and committee for 2019/2020 there will be a presentation of the proposed development of the club over the next five to six years as we look forward to the future of our club.

The proposed setting of membership subscriptions is on the agenda as the annual membership subscription for the club has not been increased for many years.

Your 2019/2020 membership renewal is payable at the AGM on 3rd April. Membership is likely to be in the region of £40 but this will be decided at the AGM. Anyone who cannot attend the AGM please send their renewal to Barry Statham.

Strawberry Line Invitation

The Strawberry Line at the Avon Valley Country Park in Keynsham has invited members of our club to their Mixed Traction Event on 22nd & 23rd June.

They plan to have visiting engines from all over the UK including traction engines. This invitation is open to all 5" locomotives and owners. If you would like to attend please contact Tony Lowe.

Radstock Museum

Radstock Museum have a current exhibition of Model Engineering which runs until the end of April.

There is a fine selection of 5" locomotives which includes a S&DJR 7F 53807 and two very detailed rakes of private owner waggons. The South West Meccano club have a good selection of working models along with some very original and collectable Meccano kits in their original boxes which no children can have ever got to play with!

A 4" scale traction engine is near the main entrance and at the other end of the scale is a 3/4mm to the foot diorama of an early Midland

Railway locomotive the detail of which needs to be seen to be believed.

There is even a homemade lathe from the workshop of a local model engineer on display made by attaching a compound milling drilling table onto a bench grinder.

If you have not visited before, the Radstock Museum is based in the former Radstock Market building and is a fascinating afternoon out showing the history of the Somerset Coalfield and the railways, local industries and communities in the area. www.radstockmuseum.co.uk

Roller Rebuild (Part 2)

By Dan Jones

'Rebuilding an Aveling and Porter Steam Roller No. 11296 of 1925'

On Saturday the 18th of February 2017, Aveling and Porter No. 11296 was unshipped ready to be stripped down and have major boiler work carried out. In model making, its often difficult to choose a starting point. When stripping down full size road steam, it's quite easy to pick a starting point-the easiest stuff to get at, which in the case of No. 11296 was the engines motion work. I will point out now that at some point during preservation the engine had been converted from running the motion on oil to running the motion on grease, with the oil pots having grease nipples screwed in. I will also point out that grease gets everywhere and is very difficult to get clean without making lots of other things dirty first- which is exactly what I did! Tools and equipment were almost unusable after handling them for half a day with greasy hands.

First to come off was the connecting rod between the crank and the crosshead/piston rod, then the eccentric straps and valve gear, the regulator and gear selector arms and the supporting castings. Despite saying remove the easy stuff first, you must bear in mind that everything on a full size

engine is heavy with my engine making no exceptions.

Next the cylinder block fittings were stripped off including cladding sheets, mechanical lubricator, governor, safety valves, whistle and blower valve. The plumbing was to follow, with the removal of both injectors, clack valves, water lifter, connecting pipework and steam and water valves.



Figure 1 - Pallets of very greasy parts

By the end of the day I had filled two large pallets with greasy parts ready for refurbishing and reassembling at a later date (figure 1). By the time I returned home, I can safely say that my overalls were able to stand up by themselves because of the amount of grease and dirt stuck to them, much to the displeasure of my mother who was tasked with washing them!



Figure 2 - We have lift off! Removing the canopy with the telehandler

Day two of the weekend consisted of heavy components and heavy lifting equipment. The first piece to come off was the canopy. This presented a challenge of its own as it had been built as a frame around the engine rather than on the engine, preventing the canopy and frame from coming off in one piece. So I took the weight of the canopy with the telehandler (big forklift for those unsure), then cut the canopy supports away

from the running boards and frame with a 9" angle grinder. The canopy and supports were then lifted up over the engine and driven off into the field to provide dry storage for the other parts that would be joining it shortly (figure 2). With the canopy removed, the supporting frame and running boards were removed which gave full access to everything else. The chimney was removed, the crankshaft, flywheel and spur gears were lifted out of the bearings as an assembly and placed on a pallet ready to join the canopy in the field.



Figure 3 - Removing the front rolls from the headstock

It's very lucky that No. 11296 has never been derelict and has been rebuilt in the past as none of the nuts and bolts were rusted up, everything was in good condition and came apart very easily.



Figure 4 - Gone!

By this stage the roller is looking quite bare compared to 24 hours previous, with the front rolls to be tackled next. The steering chains were disconnected from the chain sweeps and two large strops were threaded between the forks and the rolls (figure 3). The front end of the engine was then lifted up with the forklift until the tender was touching the floor, then a stack of wooden blocks were placed underneath the smokebox and the front of the engine was lowered back down onto

the blocks. As the boiler rested on the blocks, the front rolls slipped out of the headstock and were liberated from the engine for the first time for many years (figure 4). Once the front rolls had been carried out of the way it was only natural to remove the rear rolls next.



Figure 5 - Rear rolls removed

The back end of the engine was lifted up and blocks of wood were placed underneath the foundation ring for the engine to rest on and suspend the rear rolls. With a strop through the spokes in the roll, the forklift took the weight and the roll slid off the axle... easy! Repeated the same operation on the other side leaving just a chassis of a former steam roller (figure 5). Removing the rolls gave access to the shafts and gearing so that was next to go. This was quite easy as it was only a matter of unbolting the gear guard, removing the bearing caps and sliding the shafts out with gears attached. Removing the rear axle required the brake mechanism to be dismantled and removed first and then pulled it out of the axle boxes (figure 6).



Figure 6 - Gears and shafts removed

Most of the gearing wasn't too heavy and could mostly be handled by two men, thankfully I could get all the shafts and gearing on one pallet and tuck it away in a safe corner of the yard (figure 7).



Figure 7 - Pallet sized! Gears, shafts and brake drum

At this stage in the day the roller is weighing less and less every hour, a trend that's not about to change any time soon. Next off was the tender, so I took the weight of the tender on a pallet with the forklift, out with the long (4' long) socket wrench and the big socket set, unscrewed the bolts between the tender, the hornplates and the axle boxes then kicked out the axle boxes and lifted the tender away (figure 8). Almost all of the heavy stuff is removed by this point which is a good achievement for only two day's work, I just have to remember where I've put it all!



Figure 8 - Tender has parted ways...

....Exposing the boiler and understanding the task ahead to follow in **Part 3!**