

The following from Ron Sadler

Notes on the Restoration an 1930 Austin Seven Mulliner Sports

Progress on the restoration of the Mulliner has been steady rather than dramatic. I have concentrated on the chassis and that is nearing completion. The chassis, front and rear axles and the radius arms have been powder coated, the remaining bits have just been carefully painted. I have replaced and reamed out all the bushes in the front suspension and the braking system. In addition I have renewed the brake cams and replaced the steel end caps to the aluminium brake shoes. I have read that you should drill the centre of the cap and the end of the brake shoe and fix the end cap to the shoe with a countersunk screw. I don't think that this is necessary as the cap should be a tight fit onto the end of the shoe and it is retained in position laterally by the flanges each side of the brake cam. Time will tell if I am right or wrong. The front linings are not too badly worn and I decided not to replace them, it was however necessary to take up the wear. There is no provision for adjustment in early Sevens so I adjusted the brakes by wrapping small pieces of curved shim around the brake shoe pivot until the shoes were just touching the drums. It was very time consuming but worked out all right in the end. I used new linings on the rear brakes and did not find it was necessary to use any shims.

I have also tackled the steering. I renewed the kingpins and bushes, all the other bushes and connections in the steering set up and finally repaired the steering box. When everything was assembled the result was very tight steering; the biggest single contributors to the tightness were the kingpins. The problem was that in order to eliminate vertical play it is necessary to insert shim washers on the kingpin above the axle eye and it is difficult to get the correct thickness washers. In the end I compromised by accepting more play than I originally wanted in exchange for getting an acceptable degree of stiffness at the steering wheel.

In the rear axle I replaced all the felt seals with modern lip seals, which was quite easy to do except for the inner halfshaft seals. The original felt halfshaft seal sits in a metal cup that is held in the housing by a wire clip and a retaining plate. The lip seals that were supplied to me were a good fit into the cup but the cup itself was a very loose fit in its housing. In the case of a thick felt seal this did not matter as the cup and seal would have been held in place by the wire clip and the plate. With a modern lip seal (being thinner than the felt seal) the clip and plate would not have trapped the cup and seal, the lip of the seal would have gripped onto the halfshaft and the seal and the cup would have rotated with the halfshaft. Luckily David Cochrane was able to supply me with lip seals to fit direct into the housings. The diameters of the housings are not machined to fine tolerances and David supplied seals of different outer diameter for each side.

I have dismantled the engine and in March I discovered a crack in the crankshaft and decided to order a Phoenix crank. To cut a long story short it has not yet arrived. After much deliberation I also decided to order Phoenix conrods on the grounds that it would be devastating if, after splashing out on the new crank, one of the old rods failed shortly afterwards. Following that line of thinking I further decided that after spending all that money it would be false economy if I did not have the block rebored and buy new pistons. At the moment I am leaning towards buying an

exchange block and pistons from Quarry Engineering. I will report in the future on progress on that front.

I have already restored the dynamo and the starter. They were in amazingly good condition for 80 years old. Incidentally The Austin Seven Workshop Manual (by Doug Woodrow) state that the gap between the commutator segments should be cut back in the case of the dynamo but should not be touched in the case of the starter motor. Can anyone explain why the treatment should be different?

I have done no work on the body yet but it does appear that the metalwork is in reasonable condition and the ash frame will not require many repairs. The majority of the original fabric body has been covered with aluminium (in some cases over the fabric covering). I am going to remove the aluminium and replace the fabric, I understand that this sort of work can be done to a reasonable standard if enough care is taken. The doors, which on the original car had a horizontal top edge, have been butchered in the past to feature an "elbow cut out" similar to an MG TA or a TR2. I intend to restore the doors to their original shape



