***Restoration of a Morris 8 by  Gavin Bird***

What follows is going back a bit from my hurried submission for an earlier newsletter.

These are jottings and are not necessarily in order.

The restoration started many years back, so some of the processes undertaken might have been forgotten over that time period, and this is a brief description of the process.

Its completion was undertaken during the Covid Lockdown period, had to have something to fill in the days with not being allowed to roam freely.

**Assistance**

A friend who keep himself free of the virus dropped in one day to say gidday (socially distant) whilst I was undertaking something on the car, so he undistanced himself and lent a hand as he was bored doing nothing.

I indicated if he got bored some other time he could drop by again as having an extra pair of hands, even if not totally 'mechanically minded' certainly helped.

It transpired to be frequent visits.

**Process**

The restoration was started with the easy bit being done first, that’s pulling the car to pieces.

Lots of photos were taken at the time as what seems obvious gets forgotten with time.

In regard to parts, most new parts required were purchased years ago from the Club, along with some recent purchases, and then some from Basis NZ in Renwick.

Over the years of ownership of the car I had collected a number of spare parts, some new but mostly salvage old.

As parts were removed they were tagged, labelled and boxed as is the norm.

With the motor, gearbox and all running gear removed, the body was removed and placed on a frame I built to take it, putting it on castors for ease of shifting about.

The frame is now available to anyone who might like it).

I drew a bit of a sketch of the chassis showing where all the brackets and clips went, prior to removing them for cleaning, stripping and painting.

**Mechanicals**

Most all of the mechanicals were attended to.

A local engine reconditioner (The Engine Shop) undertook the machining work, boring the block to take the new pistons and rings that I had.

I also had a couple of Series E motors so I extracted a crankshaft and caps to be machined to take shell bearings that I also had.

(More frequent oil changes might be required due to the filtering only being by the original oil strainer and not a filter as such)

Another bit of machining was the fitting of hardened valve seats to cater for the unleaded fuel of today.

A selection of oil pumps and gears were taken to the reconditioner to select the best of the lot, do a bit of machining and assemble a pump.

I thought it prudent to have a short block assembled (crankshaft, rods and bearings and pistons to get a bit of a guarantee on that work.

It's taken me so long to complete the restoration it probably wouldn't have mattered if I had assembled it myself, as the guarantee/warrantee would have long run out.

That said, I put the rest of the motor together with new valves, valve springs, timing chain, timing gears, clutch plate, gaskets, seals and the like.

**Radiator**

I took the best radiator from those I had available to have the core flushed out and pressure tested (Cooks Radiator) prior to using.

Once refitted and filled SCA antifreeze was added.

**Body**

The body had all rust removed and new steel added where necessary or new pieces fabricated, the body is now 100% rust free.

**Painting**

Paint stripper was used to get the majority of the old paint off the body.

All brake cylinders were honed and new cups fitted, same for brake master cylinder, along with new brake shoes, glue fixed as is the way these days.

**Electrical**

Using the wiring loom that was removed as a pattern I made a new wiring loom using plastic covered wiring, this was taped together and sent off to Fineline Marine in Auckland to be cotton covered to resemble the original.

A relay had been fitted early in the cars life for sealed beam headlights, this was refitted.

A new relay and flasher unit was fitted to feed the new indicators mounted on the bumpers, (kindly supplied by another Waikato member) the power supply was taken from the round terminal block and the power supply terminal for the semaphores.

As an update, I purchased from the UK, flashing festoon bulbs for semaphores.

The same local member had fitted a battery isolation switch and I thought it prudent to do the same,

**Doors**

New window felts were fitted to the doors for the windows.

I made a sketch at the time of removal of the old so that I knew the correct sequence when replacing with new.

All door locks and window winders were removed 'refurbished' and greased prior to reinstalling.

New door leather check straps (leather from Lapco) were cut and using the original fixings were then fitted.

Plastic sheet was glued to the inside of doors to protect the door card from moisture.

Hidum tape was screw fixed instead of the original nailing so that any subsequent removal could be easily accomplished.

New fabric to the thin steel plate under the door window cappings makes for a good finish at the glass face.

**Tyres.**

New cross ply tyres were obtained from Classic Tyres Tauranga, since then I have established many of the local owners are running radials.1` these are a more economical option.

**Oils Used**

Castrol D140 was used in the gearbox and differential (Classic Oils NZ)

Sump oil 20/50, will be changed to 30.

**Mirrors**

3 inch round clamp on (peep) mirrors fitted, (Hawkswood AK) they look nice and the RH one does give a reasonable view of cars passing on the right. The LH one just looks nice but is ineffective.

A new inside mirror replaced the old one, and the original semaphore mirrors were refitted.

**Upholstery**

Using some surplus vinyl from the door cards piping was made for top edge of dash timber.

Hideum tape was obtained from local upholsterer, (Raymac Motor Trimmer) he was also kind enough to lend me a compressed air stapler for the fitting of the wind lace and hideum tape (except for the doors where it is now screw fixed.

Ados F2 contact adhesive was used on all the upholstery that need to be glued.

All the old vinyl and carpet that was removed was laid out and measured so the amount of new material required could be determined.

After a bit of a search a piece of carpet the right colour was obtained, and using the old carpet as patterns the new carpet was cut to fit, the edges bound by Ray.

All the backing material for the vinyl was replaced apart from the timber to the doors surrounding the windows, most was in good condition and could be reused apart from a couple of pieces that needed attention.

The original seats were reused with original covering were reused.

They had been covered from new, so apart from being cracked were in what might be called good original condition for being over 80 years old.

The upholsterer replicated the door upholstery; this was then glued to new door 'cards'

**Shock Absorbers**

Out of the original Armstrong pear shock absorbers, and spares I had, I

All panels and the body had primer paint applied outside in the back yard, this was fine for the primer but didn't work so good with the top coats. Dust and insects were attracted to new wet paint, so the top coats were done by a painter within a controlled environment
The original paint was matched using the patch of colour exposed when the radiator emblem was removed.

Interestingly, inside the body under the rear window are two workers signatures, and the word Maroon

New metal running boards were made by an 'old school' panel beater and once painted new rubber (Better Industrial Ltd) was glued on (using Gorilla FixAll High tack adhesive) following the Bob Bryan method. **morris8-bobbryan.co.uk** *http://www.morris8-bobbryan.co.uk*

The ends are capped off with fender welt to mirror the original rolled edge.

The number plates were painted and then skimmed at an engine head reconditioner to get original swirl pattern.

Fineline masking tape (from PB Tech) was used to mask the newly chromed bumpers so the black recessed section could be painted.

**New timber**

Where the original timber within the body was a bit dozy it was removed and new timber shaped to that that was removed was installed.

**Steering Box**

The steering box had the peg on the cam replaced with a spare that was in better condition than the original, along with a new felt bush at the steering box end as well as the one just below the steering wheel.

The cam/rockershaft play was sorted using an assortment of shims I had to hand.

Penright Steering box oil/grease was used in the steering box, better that just using grease, but not as fluid as oil.

**Steering Wheel.**

The splits that had developed over the years were filled, and the wheel painted using black stone chip texture paint.

**Carburettor**

The carburettor was fitted with new cork seals (after boiling them to soften them up as they had been in storage for years) and a new float valve and needle obtained from the club was fitted.

The suction chamber was polished up to give a bit of bling.
Once it was installed and the motor running, it was tuned using a 'colour tune device'

**Petrol Pump**

The petrol pump was fitted with new diaphragm I had in my spares, the adjustment took a couple of goes to get it to pump as it should. New washers were fitted at all those junctions and the pump filter, cleaned.

**Petrol Tank**

After removing all fittings and the sender unit from the petrol tank, I followed the recommend practice of putting a chain down the filler neck and rattling the tank about to dislodge any rust.

Following this I used KBS 3 part Motorcycle Tank Sealer Kit (sufficient quantity) to seal the inside of the tank surface.

Some fibreglass fabric and resin was needed to tidy up the underside a bit, along with Permatex fuel tank repair kit (Supercheap) to seal some small holes.

**Distributor**

The distributor advance weights weren't advancing so using spares available this was sorted along with new points, baseplate, sparkplugs, plug leads and Acorn nuts

After a bit of static timing it was adjusted using a strobe light, home handyman quality, so it had to be undertaken in a darkened garage, even then one had to be careful not to get too close to the radiator fan.

**Exhaust**

A new front pipe was fitted  with a new exhaust pipe formed to the shape of the one removed from the car. Finding someone to bend such small diameter pipe was a bit of a mission initially. (Hamilton Tube Bending Ltd)

**Differential and Half Shafts, Wheel Hubs**

As I had the bearings I installed these and adjusted the backlash to specification.

New wheel bearings from stock were fitted along with new (old stock)

**Brakes**

The original copper brake lines were in great shape so were cleaned out and reused with new flexible brake hoses.

picked the best, drained and refilled, checked the dampening and rebound action in the vice prior to fitting.

**Finish stuff and bits and pieces.**

Using a block of solid rubber a new bonnet rubber buffer was made to match an existing original, and new door buffers made using the same block of rubber.

A piece of black tubing was split and fixed at the ends of the bonnet, each side to assist in preventing scratching of the paint on the guards.

Heat shrink was used on the bonnet catches, similarly to help prevent scratching of the paint on the guards.

Via the club a fiberglass gearbox cover, gearshift cover and fender welt was purchased and fitted.

**Gauges**

Although the speedo cable when fitted was ok, the inner broke immediately as the speedo had been stationary for so long the mechanism was gummed up.

It was disassembled and freed up, along with zeroing the mileage recorder.

A new inner was manufactured locally, (Auto Trail Ltd) unfortunately It didn't fit properly immediately so a bit of installation and removal and alteration was required.

The other gauges were similarly disassembled; the glass cleaned and polished up so things looked a bit like new.

New olives were obtained for the copper pipework feeding the oil gauge

New rubber for the windscreen glass to fit into frame was cut and fitted, and via the Club a new rubber seal to fit the windscreen to the body.

I had a new windscreen in the parts so fitted that instead of the original.

**Tool Roll**

The original tools were practically all there, coming with the car when purchased, along with the original jack, and jack handle, and starter crank handle, feeler gauges etc.

A new tool roll was made to wrap everything up.

## Conclusion

Once the car was all back together, there was the slight nervousness about would it start and would it go.
All fluids were checked, the motor turned over by the crank handle with the spark plugs out.

With the ignition on, the petrol pump burst into life, the thing was it wasn't pumping petrol.  By blowing through the filler pipe it assisted in priming the pump and all was well. A pull on the starter and the motor burst into life and filled the garage with smoke as a result of the oil I had lubricated the cylinders with.

A quick run down the road identified a bit of brake balancing was required, (binding wheel cylinder) after which it was set for a warrant check.  With the warrant obtained, the car registered, it has now done 400 miles and has only required a couple of minor tweaks to have it running reliably.

The sketches I made, if they are likely to be of help to anyone I am happy to provide to them,

**Gavin Bird**