

WESTERN

A MODEL NEWS

THE OFFICIAL NEWSLETTER OF
THE MODEL A RESTORERS CLUB (WESTERN AUSTRALIA BRANCH) INC.

JULY, 1984

Next Meeting: Sunday 29th July, 1984

This meeting is the ANNUAL GENERAL MEETING of our club. There will be a short run before the meeting, starting at 1.30 p.m. at the Causeway Car Park, and taking you out to the Veteran Car Club's clubrooms in Hale Road, Forrestfield, (near Gosnells-Beechboro Hwy). The A.G.M. is due to start at 2.30 p.m. Please note the change of venue for this meeting. After the business of the day is done, there will be afternoon tea, followed by a movie of the Kiama National run in early 1984 and a promotional video for the next national run to the Barossa Valley, S.A. in 1986.

We would love to see you all there, and ladies, would you bring a plate of afternoon tea please?

ELECTIONS: The following positions will become vacant, and nominations are required at the A.G.M. We will need a

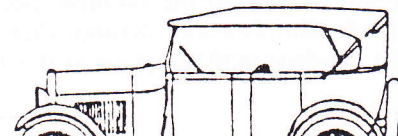
VICE PRESIDENT
SECRETARY

Please give this some thought before the meeting and offers to take on the positions will be most welcome.

SUBSCRIPTIONS are now due, \$7.00 per annum. The Secretary and her trusty receipt book will be at the A.G.M. for those who want to save postage.

NATIONAL RALLY, BAROSSA VALLEY 1986. As this area of Australia is a major tourist attraction at all times of the year, it has been advised that those who intend to participate in this Rally do something about your accommodation promptly. The Cookes have arranged themselves the following - a self contained, airconditioned log cabin with Seppeltsfield Holiday Cabins. They provide everything except bedding and Mike and Laurel will be taking their sleeping bags to solve that problem. Cost \$24 for two people, plus \$2 per child. You can hire bedding at an additional \$4 per adult and \$1 per child, per day. The cabins can hold up to six people and for those who want to try for the same accommodation, the address is P.O. Box 230, Tanunda, S.A. 5352. Telephone 085-628240. \$50.00 deposit required.

COMING EVENTS: July 28th - night out at Civic Theatre Restaurant.
July 29th - A.G.M. - V.C.C.W.A.'s clubrooms, Hale Rd. Forrestfield
August 26th - Run to Pinjarra, details next newsletter.
September 30th - Araluen Run.
October 28th - ALL 'A' MODELS RUN, with volunteers to help organise this event still required. Please let the Secretary know if you can assist.
Oct/Nov - Sometime, a run to Harvey(?)
Nov/Dec - A Xmas Social outing, suggestions welcome as bookings should be made soon.



TINY TIPS



from Readers

ADJUSTING ROD & MAIN BEARINGS:

If the engine bearings have not been adjusted for some time, it is a good idea to check them and this is the procedure:

Jack up the front end of the car and put stands under the axle . . . Drain the oil in a pan. Remove the dust cover plate between the oil pan & fly wheel housing. Remove dip stick, and bolts from oil pan. Lower oil pan and pump. Remove carburetor, side oil return tube, valve cover and spark plugs. Remove cotter pins from main bearing bolts and rod bolts (cotter pins in bolts on front main bearing are behind the generator, below water pump, center bolts in valve chamber and behind water outlet above oil dip stick).

Remove rear main bearing cap using $\frac{1}{4}$ " socket and breaker bar. Remove shims from each side of bearing so they are about equal in thickness. These shims are laminated and a sharp knife will split them. Add or subtract necessary shims until there is a light drag on the engine by cranking engine by hand with crank. Then add one shim back so there will be about .002 clearance for oil.

Proceed with the front and center main bearing the same using a $\frac{9}{16}$ " square socket on the bolt on the bottom and a $\frac{3}{4}$ " box wrench on the nut on top. If there are no shims or not enough to adjust the bearings, file cap flat with a file until proper drag is achieved, then install one shim only to give .002 clearance. After adjusting the main bearings leave the bolts a little loose, so there is no drag when adjusting the rod bearings.

To adjust the rods, use same procedure, only use a small hammer to tap rods sideways until you get a slight drag, then install one shim to give the proper .002 clearance. After all bearings have been adjusted, proceed to tighten all bolts and nuts to line up with cotter pin holes. Install new cotter pins; $\frac{7}{64}$ " are better — you can use $\frac{3}{32}$ " if desired. When all bearings are tight, be sure the engine will crank over. If not, recheck to be sure you have adjusted them properly.

If above is okay, clean oil pan by steam cleaning or a good solvent. Check and be sure oil pump is working properly, and gears, bushings and oil screen are good. If not, overhaul the pump. The oil pump is the heart of the engine.

Proceed to clean all gasket surfaces. Put a heavy grease or #2 Permatex on the block where the gaskets go and install gaskets. Put the rear arch gasket in the groove of the main bearing so it fits in tight. Put the front seal in the oil pan. A little permatex on each corner of the block where the pan fits helps to eliminate any oil leaks. Be sure rear oil pipe is in rear bearing and open. Install oil pan and tighten all pan bolts. Install dust shield, install side valve cover, side oil return tube, carburetor and spark plugs. Remove stands from under axle and lower car. Install new fresh oil, 5 quarts #40. Start engine and let it run on a fast idle for a few minutes. See if there are oil leaks. This completes another job on your "A."

Herb Cuckler
Santa Anita A's

SPEEDOMETER GEAR

Owners of 1930-1931 Model A cars using a 3.54 rearend can nearly compensate for the 3-4 mph speedometer error at highway speeds. Simply use an 18 tooth 1928-29 speedometer driven gear (at the driveshaft) in place of the 1930-31, 19-tooth gear.

Early 1930 cars are the easiest to correct, by merely bolting on the entire early speedometer driven gear and cap assembly, as this unit has the keyed end which will work on all oval speedometer cars. New gear and cap assemblies are available. However, you should first look for a good used unit from parts cars, friends, etc. The used one will fit better and cost less than a repro.

Richard Leffler
Newberg, Oregon

SPEEDOMETER CABLE

For the early Model A's using the large speedometer cable housing, I find there is a lot of slack from cable to housing and the cable can flop. To overcome this, and also give it a more wear-free surface to turn it, I obtained a piece of nylon tubing used to supply water to evaporative type window air conditioners. Take out the cable and cut the tubing to the length needed. Then you need to split the tubing on one side. Start at one end with a sharp pocket knife, cutting from the inside to out. After you have cut the full length of the tubing, lubricate the cable and put the nylon tubing around it by spreading open the slit and working down the length of the cable. Put it back in the housing and hook it up. You will have a quieter cable and a smoother speedometer.

Bryan Kugel
Lamont, OK

SHOCK ABSORBERS

Shock absorbers are adjustable. A higher setting (five for the front shocks, and six for those on the rear) is recommended for better driving in the summer months. A setting of two for front and three for the rear is recommended for winter driving. The settings are visible on the 1928 shock absorber arms, but sometimes it is impossible to read due to wear, rust or fresh coats of black enamel. Later shock absorbers do not have the numbers, but instead contain a slotted or square end on the needle valve. Resistance is increased when the valve is screwed in (clockwise) and decreased when the valve is backed out.

Wayne Mount
The Accelerator

CRACK DETECTION

An important step in any repair operation is testing for cracks. Many hours of labor can be ruined if cracks in critical areas go undetected and results in a damaged part. All parts need to be thoroughly cleaned and the paint removed for testing the surfaces, as paint and dirt form a seal which makes detection of cracks impossible. Here are some of the testing methods:

Magnetic Check - A magnet establishes lines of force traveling from its north to south magnetic pole through the air of ferrous metal to which it is in contact. When checking for cracks, an electro-magnet is generally used, as it projects stronger lines of force. If the crack is between the legs of the electro-magnet and is across the field of flow, a small secondary magnetic field with its own north and south poles will form, attracting magnetic dust sprinkled on the area. After blowing away the excess dust, the crack is visible as a line either filled or covered by the remaining dust. It should be noted that cracks



running parallel to the magnetic lines of force will not form a disturbance and are not detected. The test should be made in one direction and then rotate the magnets 90 degrees to re-test.

Dye Penetrant - Dye penetrant is another way to detect cracks and will work on non-ferrous materials. This multi-step process is accurate and quick. As the dye is spread on the pre-cleaned surface, capillary action draws it into small cracks not visible to the eye. Some dye will remain in the crack, even after the excess is wiped away using the dye remover and a cloth. A developer is then sprayed on and allowed to dry until chalky white in appearance. The developer soaks up the penetrant left in the crack and appears as a red line. Then, you can figure out if and how the crack can be repaired.

Black Light Testing - The term "black light" refers to that part of the light spectrum not visible to the unaided eye - ultraviolet light. When ultraviolet rays contact certain kinds of materials, a reaction occurs causing the material to glow or become fluorescent. Also, the surfaces must be cleaned thoroughly, and generally a special cleaner is included with the kits, to be used just before testing. The black light can be used to test for cleanliness because oil and grease will glow under its rays.

A penetrant is applied to the area after it is completely dry. Sufficient penetration is critical to obtaining a good test. If the penetrant dries, it can be re-wet by applying more. Any surplus should be wiped away with a clean cloth. It is necessary to remove the remaining penetrant with a special cleaner, otherwise the entire surface will glow, making crack detection impossible. After this step, apply a thin coat of developer on the area to be tested.

Inspect the area with the black light. Any cracks will show up as a glowing line if all procedures have been carried out correctly.

Puget Soundings

DOOR HANDLE INSTALLATION

Before installing the exterior door handles on that freshly painted door, place several layers of masking tape around the hole that the handle mounts through. Sometimes considerable amounts of pressure are required before the handle will slip into position. This may cause the escutcheon to slam against the door, marring that beautiful new paint job. Several layers of masking tape are required because the edges of the escutcheon are very sharp. The tape is easily removed after the handle is in place.

Joe Tennyson
Chestertown, N.Y.

CARBURETOR AIR FILTER

If you must have an air filter on your Model A carburetor, as some of the "cowboys" in our club insist upon having, a simple, practical and inexpensive one can be adapted from 1-1/2" PVC plastic pipe fittings. The one I have on my Model A is the black plastic gooseneck used as part of a sink trap. It is flanged on both ends, and is the 180 degree bend. The flange fits perfectly on the intake of a Tillotson carburetor. A little buildup with tape is required for a good fit on a Zenith. When installed, the opening is facing forward at the bottom of the carburetor. I have mine held on with a sheet metal screw. You may prefer to drill and tap the lock screw.

At the air suction end, inside the flange, I placed a piece of screen over which is placed a 1/2" thick piece of suitable air filter material, held in place with another screen. Suit yourself as to the best filter material and the method for keeping it in place. Mine is similar to what is used in home heater filters.

If you don't like the 180 degree bend, get some 90 degree elbows and face them to suit yourself. Two 90's with a reducer aft is a good one, or a 90 with the reducer facing downward. The screens and filter material are always between the two fittings. You may also want to put a heat shield between the exhaust pipe and the plastic pieces.

Too much filter material in the pipe will restrict the air flow. Experiment. Normally the fittings will fit snugly, so no adhesive is necessary to hold them together. You don't want to glue them, because you'll want to change the filter material occasionally. If not tight enough, tape them or use metal screws. The price is right!

Arthur L. Poganski
Kentfield, CA

TIGHT WINDOWS

If you've ever had trouble raising and lowering your windows and never got motivated enough to take off the door panel, grab a clothes hanger and straighten it out. Bend a hook in one end, lower the glass, insert the wire between the glass and the sill, and hook the wire over the part that needs oiling. Take an oil can and squirt oil on the wire and it will flow down to the mechanism, lubricating the tight parts.

Rio Grande Valley A's

SHIMMY

How do you stop shimmy? When I rebuilt my Model A Panel Delivery several years ago, I made sure that the front end was tight; new king pins, bushings, and whatever was needed. Once it was running, everything worked fine. It went on many tours, relatively trouble free until the last year or so. A little shimmy started creeping in and got progressively worse.

This is how bad it got: Anytime I put on the brakes, it would start to shimmy. If I hit a bump, dip, or railroad track, it would shimmy. Chuckholes in the road ahead, or police cars, would cause it to shimmy.

First, I checked the king pins. There was a slight amount of wear, but I had driven Model A's in much worse shape without shimmy. I noticed that one of the front wheels had a bit of wobble. I replaced it with a straight one, but it didn't help. I checked the alignment, the steering knuckles, drag link and tie rod. They were all in good shape. The front radius rod ball joint was checked.

I noticed that the left front drum dragged a portion of the way when the wheel was spun. Aha! It must be a warped drum! I changed it and found . . . disappointment. It helped a little, but the shimmy was still there.

I checked the literature, searching past *Restorers* for clues. I saw that a worn steering sector could cause shimmy, so I adjusted out some of the play. I found that the steering column had developed a fatigue crack at the lower end of spark and throttle rods. I was sure I had found the cause! But, after welding it up, the problem was only slightly improved - I could control the shimmy more quickly.

I went back to the front wheel that was dragging. I removed the drum and found evidence of the outside edge of the brake shoes rubbing on the drum. Something was allowing the brake drum to slide in too far. This led to inspection of the inside wheel bearing. It looked alright, but I replaced the bearing cone as well as the cup (race) inside the drum. At this point I noticed that the spindle was worn where the inside bearing presses against it. An 1/8" thick spacer was placed between the spindle and the bearing. That was months ago, and it has not shimmed since.

Evidently the bearing was not being pushed far enough into the drum to make proper contact with the cup.

Dale Campbell
Everett, WA

WATER PUMP SEAL

Place a #6125 or 6130 C/R oil seal in the rear water pump bearing. It's not as hard as it sounds if you have access to a lathe. You simply turn out the rear face of the rear bearing to accept the seal. Be sure to recess the seal so that the remaining bearing face takes the load not the sealing surface. Also be sure to place the sealing lip to the rear.

I did the above and it lasted about 3000 miles. Upon check-

ing, I found that the bushing had given up. This was because it was made of rolled brass and only made contact on a couple of the high spots.

The rear bearing was turned out to accept a bronze bushing. This was obtained from an auto electric shop that rebuilds starters and generators. These shops seem to be a good source for small bearings. By placing a quality bushing at the rear of the water pump I expect to get many more miles out of the bearing and seal.

It sounds simple and it is. What's better is it's cheap. \$1.39 for the seal and 60¢ for the bushing. Once you have turned out the rear bearing you don't have to buy a whole kit to repair the bearing.

Another advantage is since you no longer need all the packing up front (you do still need some), you can have a reserve grease supply by running the packing nut all the way forward. To grease the bearing on a long tour just take up a couple of turns on the nut.

Jerry Bronson Redding, CA

TECHNICAL THOUGHTS

Did you ever stop to think why your Model A performs so well? Here are some interesting facts, boiled down for easy comprehension.

Using the 1930-31 stock 19 inch wheel, which turns about 70 revolutions per mile (the 21" wheel a little less) with a 3.7:1 gear and pinion, means the motor turns about 2650 revolutions per mile and 2650 rpm at 60 mph.

If you take a 100 mile trip, the engine will have made over 1/2 million revolutions. The points open and close half a million

times. If your "A" has been driven 10,000 miles, . . . Well, don't think about how many revolutions.

If you drive 45 mph, the points open and close 5300 times per mile, or about 4000 times per minute. This is why good ignition in the Model A is important.

An "A" in good condition gets about 18 mpg. At 45 mph you are using 2-1/2 gallons per hour. A full tank gets you four hours of driving with a small reserve.

Getting it to "bite size", at 45 mph you would use 20 pints per hour or about 1/2 pint to go a mile. That's about a water glass full. This would be like using one coffee cup full per minute.

Reducing it further to layman's terms, one glass full per mile would be about the equivalent of enough bourbon to make one round of drinks for four persons.

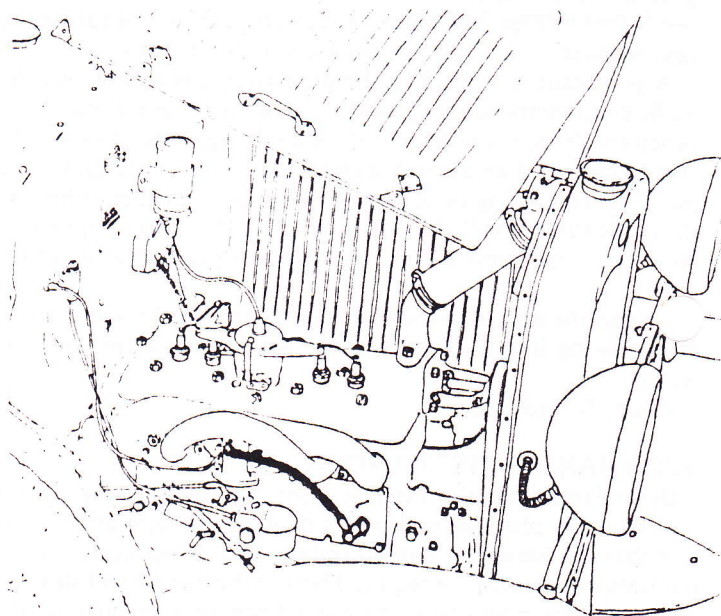
John Kergel
Oakland, CA

CRANKCASE VENTILATOR

I have eliminated my Model A blowby problem and have cleaner oil too! Several years ago, another Model A enthusiast suggested using a tube from the valve side cover plate to the intake manifold to route the fumes from the crankcase. This was good. What I have done is to embellish upon it.

Inside the oil filler cap, I have added a stainless steel pot and pan scrubber (like real coarse steel wool), available at any market. To this I have added a PCV valve (Lee #LV-61) for a 225 C.I.D. slant six Valiant engine, which is of fiberglass composition with stainless steel parts.

By adding a 1/8" Tee at the intake manifold, the stock windshield wiper connection can still be made and a 3/8" nipple for



the vacuum hose to the PCV valve will fit. The additional fitting will screw into the side cover with a 1/2" nipple, with a short hose to plug the PCV valve into.

This system really keeps the engine running clean and smooth. It works well on "A", "B" or "C" engines. Adding the extra air to the manifold only requires opening the choke an additional 1/8 or 1/4 turn to balance the gas-air ratio.

George-Chris Sprotte
Simi Valley, CA