

WESTERN

A MODEL NEWS

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

NEXT MEETING: DATE: SUNDAY, JULY 11, 1982

TIME: 2:00 p.m.

PLACE: Rita & Tony Parin's

WANNEROO.

(Ph: [REDACTED])

This months meeting will be in the warmth of Tony & Rita Parin's home with we hope, his beaut wood fire crackling away. It would be hard to imagine a fine day for this time of the year. So, rug yourself up if its cold and wet and come and have a coffee and a natter about our favourite subject.

LAST MEETING:

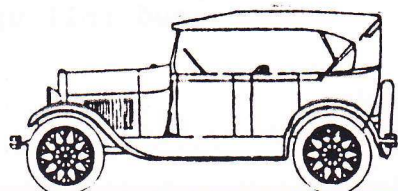
What an interesting rally - all hung together by Toni Mahony. She had us driving around streets that some of us didn't know existed. We were all frantically trying to remember names and other odds and ends that we hoped would be useful for the guiz later on. Well, a car full of kids, each with different opinions of the right answers on their quiz sheets taxes the patience a bit but we all made it by a most devious route to "All Saints" church grounds, Upper Swan. Mums and Dads got afternoon tea ready and the kids counted gravestones for a prize !

M.A.F.C.A. WORLD TOUR 1982:

The BIG surprize of the month was the arrival in Perth of eight American M.A.F.C.A. members in the presence of Bruce & Diane Davis of California, 'Doc' Bill Ingwersen and wife Darlene of Downey, California, Bob & Dottie Meyer of Cincinnati, Ohio and Kurt Petersen and Judy McMillan of Washington on a World Tour in their A Models.

After sorting out a time to meet at very short notice, a group of W.A. members managed to spend a delightful few hours at the Freeway Motel with them. We learnt enough to realise what a trip of a lifetime they have had driving their A's through Europe and some Arab countries. The other thing we learnt is that it is not a trip for the faint hearted! When you suddenly find that the way ahead of you is not too pleasant and the authorities advise you to send your cars ahead by 'airfreight' and you are faced with an unexpected extra of \$20,000+ for airfreight on 4 cars, I guess you need nerves of steel (not to mention a healthy bank account!).

However, a more charming group of people you would never meet are now well on their way across Australia to Sydney where their cars will once again be airfreighted back to San Francisco. They then drive about



another 2200 miles to the 1982 National Meet in Minneapolis to what we imagine will be not only a tumultuous welcome, but must surely go down as a milestone in Model A history.

Amongst their cars were a 1930 Coupe, a 1931 Victoria and a very rare 1931 Special Delivery. The owner of the Special Delivery, Kurt Petersen, is a very capable carpenter and he has restored three of these rare A Models with some help from his father who is also a very clever craftsman. As we understand it, there are only 15 of these cars in existence and Kurt has 3 of them. We should say, he now has two because he made the ultimate sacrifice and sold one to help finance this tour. I only saw the cars in the darkened parking area at the Freeway Motel but they were impressive and looked as if they would take a prize as they stood. I have taken some photos with a flash so will hope they turn out for members to view.

WOODY WAGONS - A Chapter of the Model A Ford Club of America:

This club specialises in Woody Wagons and for any of our members who are interested, you can contact Tim Johnston, Editor, P.O. Box 341, McAllen, Texas, 78501. Currently their annual dues are \$7.50 and they publish a quarterly magazine. Back issues are also available to purchase. Our Secretary, Mike Cooke, has a few membership application forms if required.

CONCESSIONAL LICENSING - VINTAGE PLATES

The Club now has the required yellow "Vintage" plates available for M.A.R.C. members' vehicles which obtain Concessional Licensing. Plates are \$4.00 each and are obtainable from the Secretary after all the necessary examinations and licence has been obtained.

VEHICLE EXAMINATIONS:

It is a requirement of our Club that all vehicles (A's) driven by club members are to have an annual safety inspection. Club Vehicle Examiner Ray Mahony is responsible for this task. It has been agreed that it is unnecessary for Ray to examine vehicles which have been passed by another recognised Car Club and therefore if this is the case, members are asked to forward the vehicle's Concessional Licence and/or Vehicle Examination Certificate to Ray. A copy will be kept on Club files and Ray will return the originals to the owners.

ANNUAL GENERAL MEETING - Yes, its that time again!

DATE: SUNDAY, AUGUST 22nd 1982

TIME: 2:00 p.m.

PLACE: VETERAN SECTION CLUB ROOMS, HICKEY STREET, ARDROSS
(Hickey street is a small 'road' which enters Wireless Hill Park from Cunningham Road immediately you turn off Canning Highway).

All officers in the Club have now served their two year period and all positions fall vacant so lets make it a good roll up on the day.

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Front Spindle Restorations

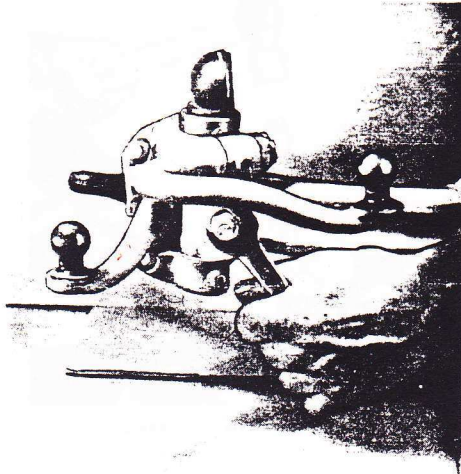
By Paul Moller, George Klecka and Fill Friar

Beside a good running engine and rear axle, the most important item that makes a car roadable is the front axle assembly. In addition to supporting the front of the car, the front axle permits the steering of the front wheels for proper control of the vehicle under all road conditions. The steering gear, drag link, tie rod, front spindle bolts, front spindles, wheels and tires all contribute to good steering. When any one or a combination of these parts become worn, difficult steering will result. The major cause of front wheel "shimmy" is worn front spindle bolt bushings. This article will deal primarily with the proper replacement of these bushings and/or the front spindle bolts, better known as "king pins."

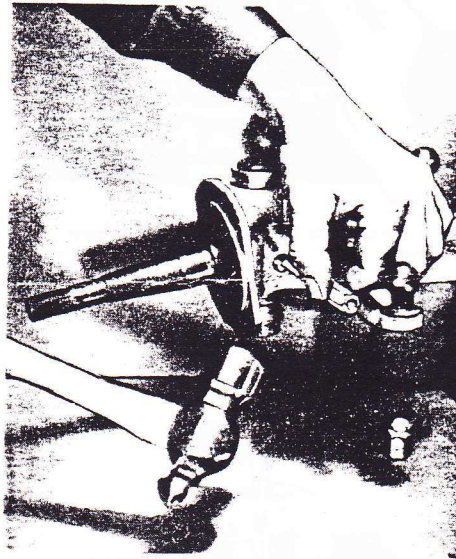
From early 1928 to late 1931 there was a slight variation in the appearance of some of the parts that made up the front axle assembly but their function, removal and installation was basically the same. The most important part to observe is the spindle bolt and its locking pin. There were three designs and they are not interchangeable.

CHECKING FOR WEAR

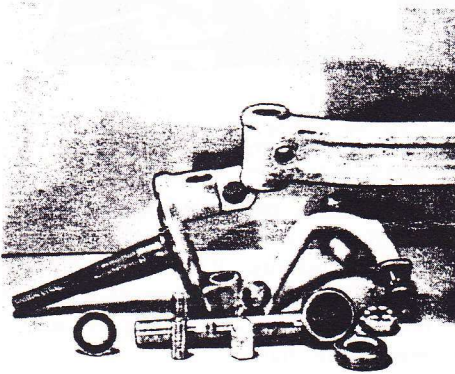
Front wheel shimmy is a good indication that the bushings are worn, but before that condition occurs it is wise to occasionally check for excessive wear in that area. This can be done by jacking up the left front wheel, since it is the first to show such wear. With one hand at the top of the tire and the other hand at the bottom, try to push the top portion of the tire in and the bottom out. Then reverse the action by pulling the top out and pushing the bottom in. There should be very little play as a result of this action. If the play is excessive, the spindle bolt bushings are worn or the front wheel bearings are worn or loose. To check, insert a chisel in the space between the end of the axle and the front wheel spindle. If play is still present, check the wheel bearings, as the nut at the axle end is loose or the bearings and races are worn. If the play



1 Loosen the locking pin nut a few turns, strike the nut with a hammer until it seats against the axle. This drives the locking pin partly out. Repeat until the nut is off.



2 After the nut is off, a hammer and drift pin are used to drive the locking pin out.



3 The spindle plate, arm, bearing and dust seal are removed from the front axle.

is gone with the chisel in place, then the excess play was the result of worn spindle bolts and bushings and these should be replaced.

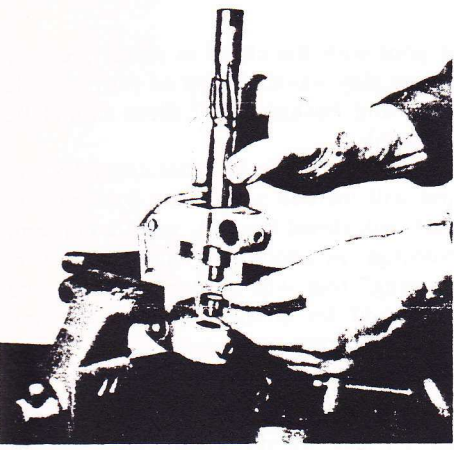
A spindle repair kit costs around \$6.00 and will include a new nut, locking pin, dust seal, thrust bearing, spindle bolt and bushings. In addition, a bushing "driver-reaming" tool will be needed. It can be purchased for about \$2.00 or you may want to borrow one.

Disassembly

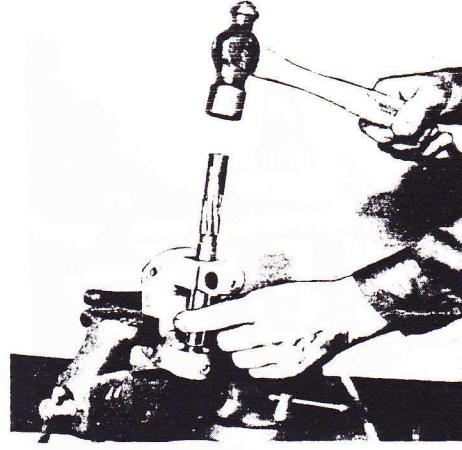
Jack up the front axle and support the car on jack stands. They make the job easier and safer. A good pair can be purchased for \$15.00. After the front wheel has been removed, remove the grease cap, cotter pin, axle nut and washer. Loosen the brake adjusting wedge completely to allow the drum to pull off easily. If the brake linings do not need replacing, cover the linings with masking tape to keep them free of grease. Remove the four cotter pins and nuts that hold the backing plate to the spindle plate; a pair of vise-grip pliers clamped to the head of each bolt will hold it while the nut is removed. Pull the backing plate out while lifting the brake operating pin up that fits inside the spindle bolt. Repeat this operation on the right side of the car. Remove the tie rod end caps and remove the tie rod from the spindle arms.

The locking pin which holds the spindle bolt to the axle has a nut on the rear of the axle. Loosen the nut a few turns and drive it toward the axle with a hammer. This will force the locking pin out the front side of the axle. Loosen the nut again and hit it with the hammer until the nut is backed off of the thread. Now use the hammer and a drift pin to finish driving the locking pin out completely.

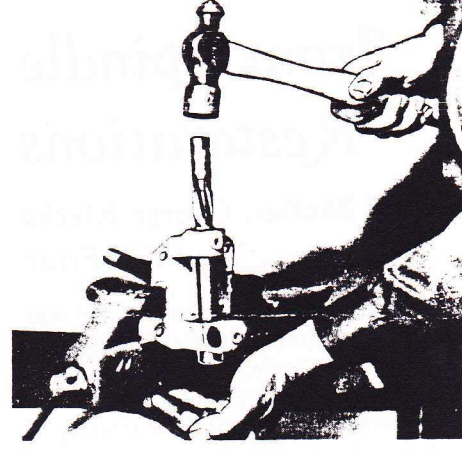
Next remove the nut from the stud of the cross shaft on top of the axle. Using the hammer and drift pin, turn the top of the spindle bolt on the left wheel side in the direction of a left turn until it turns about an eighth of an inch. It may be necessary to drive the spindle bolt up to get it to turn. With the spindle bolt turned, the stud of the cross shaft can be driven out with the threads intact. At the right side of the car, turn the spindle bolt in the direction of a right turn. The drag link cap is removed like the tie rod end. The brake rods can remain in place. The spindle arm cotter pins and nuts are removed and the arms driven out of the spindles.



4 Driver cap is placed under reamer to drive out the old lower bushing.



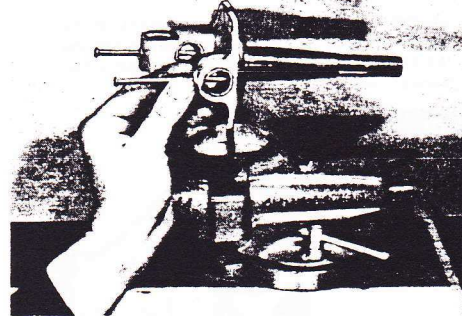
5 Lower bushing is driven from spindle.



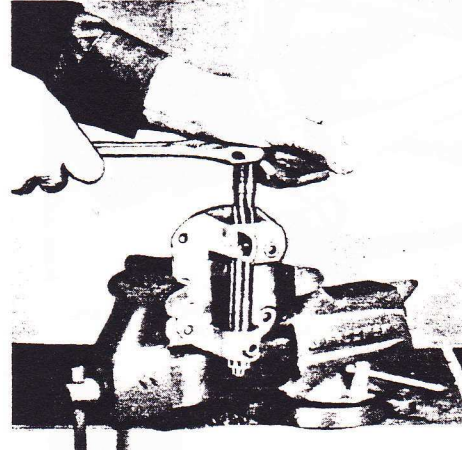
6 With spindle turned over drive out upper bushing.



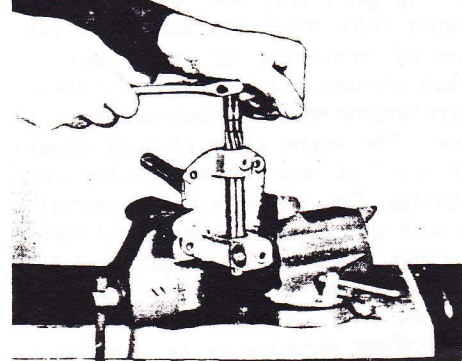
7 The new bushing is inserted from the opposite direction from which the old bushing was removed. The hole in the bushing must line up with the grease fitting hole. Arrow points to driver cap.



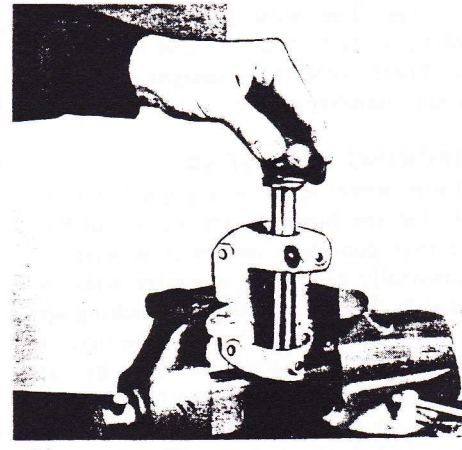
8 Nails are used to check alignment of grease openings.



9 When the first bushing is reamed, the guide end of the reamer will extend through the second bushing for alignment.



10 The guide end of the reamer will extend through the first reamed bushing, giving good alignment for reaming the opposite bushing.



11 Check fit of the new spindle bolt.

Heat or penetrating oil may be needed. Using the hammer and drift pin at the bottom of the spindle ball, drive the spindle bolt up and out of the spindle plate and axle end. The spindle plate can be pulled off.

Cleaning

Large lumps of grease and dirt should be removed with a scraper. Soak the parts in fuel oil or kerosene (do not use gasoline) for half an hour and follow with a wire brush or wire wheel. Hot water, dish washing detergent, a rag or sponge

backed up with a parts cleaning brush (available at auto parts stores) will do a good job of cleaning. Rinse with hot water and prepare for painting. If done in a laundry tub, use a large rag in the tub to protect the enamel.

Bushing Replacement and Reaming

Support the spindle in a large bench vise and with the reamer-driver tool, drive the lower bushing out. Turn the spindle over and drive out the upper bushing. The reamer has a bushing driver cap for this purpose. Repeat on

the other spindle. The new bushings should be driven in from the opposite direction that the old bushings were removed. Line up the holes in the wall of the bushings with the holes for the grease fittings on the spindle. This is very important! Be careful to start the bushings straight; the bushings, tool and spindle should form a straight line.

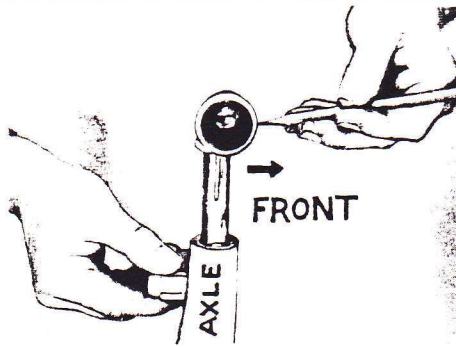
When all four bushings are in place, clamp the spindle in the vise and insert the reamer into the bushing to be reamed with the guide end fitted into the second bushing. This holds the reamer in align-

ment for an accurate fit. A large wrench is used to turn the reamer slowly and evenly with a slight downward pressure until it passes through the bushing being reamed. To remove the reamer, turn in the same direction while pushing up on the guide end until the reamer is out. Don't force it out. Turn the spindle over in the vise and repeat for the second bushing. Oil the spindle bolt and check the fit. It should turn snugly. Repeat the entire operation for the second spindle.

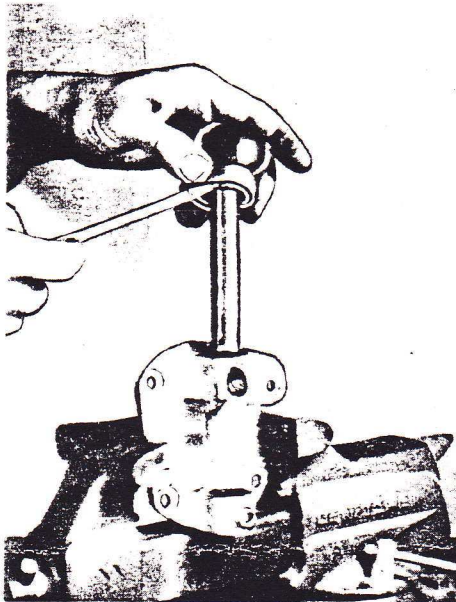
Reassembly

When the rebushed spindle is ready to go back on the axle with a nice black painted finish, the dust seal, composed of the metal cup and felt washer, should be oiled or greased and held in position at the bottom of the axle while the spindle is installed. Alignment of the felt is important to prevent cutting the felt when the spindle bolt is driven down. The old spindle bolt may be inserted from the bottom to act as a guide for the dust seal; the new spindle bolt is driven down from the top. The thrust bearing is placed on the spindle bolt with the open side down. This is done to allow the bearing to receive grease from the spindle bolt slot. The off-center ball on the spindle bolt should have the open side forward for proper spindle bolt installation. Drive it in with a hammer. It has a small flat area for driving. With the ball turned out a bit, start the cross shaft into the spindle ball and start the stud into the perch. Drive the top of the spindle straight and fasten the cross shaft with its nut. Look through the locking pin hole in the axle to check the line-up of the notch in the spindle bolt. Insert the locking pin and drive it in with a hammer. Add the nut and lockwasher. Tighten the nut and alternately drive the pin until it is flush with the axle front. Install spindle arms and the tie rod ends. Tighten the end plugs until they are firmly seated, then back off a half turn, if needed, until the cotter pins can be inserted.

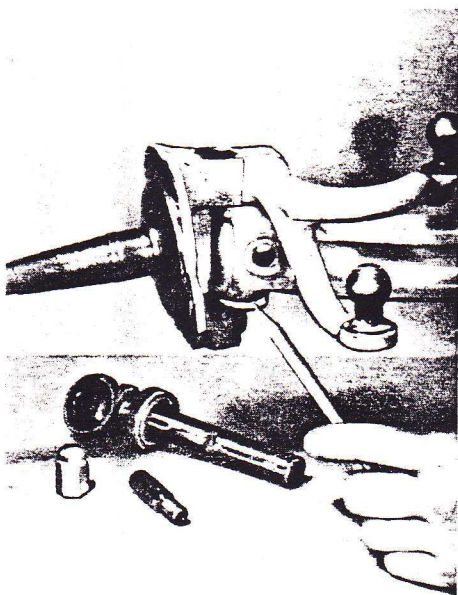
Push the brake operating pin up inside the spindle bolt with its felt washer and start the backing plate onto the spindle plate. Be sure the operating pin seats in the wedge for the brake shoes. Install four bolts, nuts and cotter pins. Once again the vise-grip pliers are needed to hold the bolt heads while the nuts are tightened. Check to see that **ALL** cotter pins have been added. Grease the wheel bearings. With clean hands remove the masking tape from the linings and install the brake drum. Insert the wheel bearing, tighten the axle nut until it is



12 The locking pin nut should be at the rear of the axle while the spindle bolt ball faces forward.



13 The upper bearing is installed with the open side down to receive grease.



14 The cup washer with the felt seal is installed at the bottom of the axle. It must center with the hole for the spindle bolt, to prevent felt damage.



15 Technical chairman, Paul Moller points to slot in spindle bolt where grease travels to bearing.

firmly seated, and back off the nut two notches to allow the drum to turn freely without excessive wobble or play.

Grease the fittings for the spindles, tie rod ends and spindle arms. Review the entire operation to make sure you have not forgotten anything.

If replacing the worn bushings sounds too difficult, you may want to have it done at an automotive repair garage. In such a case, follow the above procedure until you have removed the spindles from the axle, then take only the front spindles, spindle bolts, and bushing to the garage.

NEW DATE FOR MEMBERSHIP ROSTER

In the past the roster of members has been printed and distributed in May. However, since some members were late in renewing their club membership, the roster has never contained the listing of all club members for the year. Also, the names of new members who joined in the middle of the year would not appear until the following year. It was decided that if the roster is printed in September it would include the largest number of the club membership. Therefore, the 1968 roster will be distributed in September.