

Rolls-Royce Silver Cloud, II, III, and Phantom V  
Bentley S, S2 and S3



"FLORENCE"  
1963 Silver Cloud III, LSDW133  
William C. Habacker, Owner

## 2003 Society Officers and Directors

*From the Editor's Desk...*

I do hope this issue (a little behind as usual) finds all of you motoring along nicely and if not, then maybe reading your Post "55" to find out some new technical advice.

It was very nice to see some of you at the National Meet in Homestead and to meet many of you that I felt like I knew due to email. It is always nice to put names with faces.

This was a particularly good meet for Bill and I as you can probably see from the cover. Yes, I *did* put our car on the cover. It's not everyday that your car wins first place in touring at a National Meet. So indulge me.

Congratulations to the new officers for the Rolls-Royce Silver Cloud II, III, and Phantom V Bentley S, S2 and S3 Society which were announced at the annual meeting during the National Meet. Their names and contact information is located to the right.

Also I wish to say thank you to those of you who have sent in articles. I am thrilled that you are trying your hand at supplying me with useful information and please keep it coming. Although this publication is primarily one of a technical nature, I am always looking for articles and we all realize that not everyone is a technical expert. You don't have to be a technical expert to provide articles or stories about your experiences with your car. Remember, it is the common love and care of the PMC's that brings us together.

Here's hoping that you all have a wonderful Holiday Season and that all of your New Year's Resolutions turn out well and are easy to keep. One of mine (and I'm making this one a little bit early) is to get the Post "55" out on a *timely* basis. Oh well, 1 can dream can't I?

Until next time...

*Debbie*

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## Maintaining Your Woodwork

by Robert Bell

I have a real passion for fine woodwork and custom interiors and have done wood finishing all my life. I do custom jet and automotive interiors, but I have to say that I love doing the older cars. The older craftsmen who built these interiors put their soul into their work and they took pride in the job they did. (They were true artists in their own right). When you restore an interior in the classic car you want to not only make it look as good as new again, but also want to protect and preserve the original woodwork for years to come. So below are some tips that I hope will help you.

The older finishes on these cars are had about cracking. Once this happens the wood work is no longer sealed off from the environment and moisture can get to the wood which will lead to bigger problems down the road such as the veneer lifting and cracking as well as staining the wood with harsh water spots like you have seen on old tables from water glasses and flower pots. If your finish is cracking you should see about having it redone.

When you have your woodwork refinished you should have it all refinished at the same time because the older finishes yellow real bad which causes the woodwork to appear lighter than what it is and the last thing you want to do is start bleaching out the woodwork on one part of your car to make it match the part next to it which will have to be refinished later anyway.

When finding someone to refinish your woodwork, keep in mind that the veneer is very thin and each time your wood is refinished the old finish is stripped off then the wood has to be sanded so make sure the finish being used will hold up over a long period of time. Ask about any cracking and peeling problems with the new finish being used and will it hold up 5 to 10 years with out cracking or peeling.

For quick repairs such as chips, cracks and lifting finish you can get a one part clear polyurethane finish (no mixing) at any home improvement store. You can use this on the damaged area to reseal the wood until you are ready to have the woodwork refinished. If you've never done any wood finishing before you shouldn't try to refinish the woodwork yourself with our first talking to a professional wood finisher.

Cleaning and polishing your woodwork. You can clean your wood off with alcohol. In most cases, (never use glass cleaner because most of them contain ammonia which can cause the finish to turn white) warm soap and water on a damp cotton rag works well too. Polish the wood with Maguire's Show Car Glaze #7 about once a month and clean weekly or as needed with Maguire's Final Inspection #34. You can buy these at almost any auto store.

## Helpful Tips & News You Can Use

**SC/S/PV "Critical Adjustments" Seminar**  
**March 7-8, 2003 Las Vegas.** The Silver Cloud/Bentley S/Phantom V Society is sponsoring a weekend technical seminar and social functions, featuring a Reception/Early Registration/Cocktail Party at the Auto Collection Museum (Imperial Palace) on Friday evening, a hands-on training session, conducted by Ralph Curzon (VP Judging), covering adjustments of timing, carburetion, transmission, and brakes on Saturday, followed by a Soiree for participants and their significant others. Leave the cold behind and enjoy a weekend of learning and fun in sunny Las Vegas! Contact RROC Headquarters for costs and Registration information.

### **Society Car Badges are Still Available: For More Information Contact:**

Larry Durocher (in the U.S.)  
398 Old Sherman Hill Road  
Woodbury, CT 06798  
203-263-3720 laduoch@earthlink.net

Ralph Curzon (in Canada) 130 Mayfield Drive  
Oakville, ONT Canada L6H 1K7 905-670-3656 rhyphenr@ican.net

### **2004 World Tour Information**

To plan ahead and see what exciting events are planned for the 2004 world tour please visit:  
[www.rroc.org/worldtour](http://www.rroc.org/worldtour)

If this is not possible, contact Peter Lind at Fax # 707-967-0626, E-mail [bonpete@earthlink](mailto:bonpete@earthlink) or write to 1031 White Lane, St Helena, CA, 94574

## The Story of Florence

by  
Bill Habacker

On my quest to find the car of my dreams the very morning that I found my car I had been looking at a white Silver Cloud III in Ft. Worth, Texas. The owner of this particular car was a RR mechanic that had been transferred to the States. The car was sitting in a barn {not uncommon in Texas) and he had gotten it started before I arrived. It was a very interesting experience. He was asking a fairly high price for what the car was. If the car were being judged on its condition, it would have scored somewhere around a 66. In short it needed a lot of work. During the test drive, he never offered me the opportunity to take the wheel. I didn't ask as I had already made my decision- this *wasn't* my dream car.

Although I had been up this road before and had experienced looking at a variety of cars-I wasn't discouraged I just figured it was going to take me a little longer. Along the way on my search I had learned something from a gentleman in California who had a very pretty car for sale published in the Flying Lady. He was asking more for the car than I was ready to spend, but he gave me some very sound advice. He said, "If you're looking for a car based on price and something you could possibly restore, I suggest you rethink buying this car because the car I'm selling once fell under that category. And after 2 years of restoration and a lot more money than I thought I would ever spend, I got the car to the point where I could drive it and enjoy it. Now I'm selling it to move on to something else. My advice to you is if you are looking to buy a car to enjoy, buy one that you may spend a little more money for than what you are planning, be able to get in, turn the key and enjoy. You will avoid all of the frustration and anxieties attached." So I heeded his advice.

As I returned to Dallas that afternoon from my experience in Ft. Worth (those words ringing in my ears), I received a call from a gentleman I had previously placed two calls to who had advertised a Silver Cloud III for sale in the local paper. He was calling me back because he felt obligated to at least talk to me about the car although he had someone else already interested in purchasing the car and trying to negotiate him down from the advertised price. He said that I could view and drive the car the following day. I met him the following day along with a good friend of mine. The gentleman selling the car turned out to be Michael Hammer the grandson of Armand Hammer, one of the wealthiest men in the world. He was a very delightful gentleman who had moved from California with a collection of 14 cars, - this Silver Cloud being one of them. Much to his regret, he needed to pare down his collection. The SC III which was a cream color with red interior was a matching mate right down to the color - of the drop head coupe Silver Cloud he had inherited from his grandfather... a matched set!

He proceeded to drive me down the street where the car was stored and that is where I first met "Florence." The custom blue car covered was pulled back and I said to myself before the car was even started, this was my dream car. I knew immediately that I wanted this car. Original 76,000 miles, she turned over immediately, I then experienced my first test drive and I was so impressed. I told him, "I want to make you an offer."

"I feel obligated to talk to the other gentleman first, but please call me back tomorrow." I got back to my home that day and called him and said, "Michael if you can find it in your heart to sell me the car, I will not debate the price." I realized that after over a year of searching I had found the car of my dreams. I promised Michael that I was not about to buy it, then sell it, but that with me she would always have a good home.

When I finally did have her judged for the first time a year later, she came in at 90 points by national standards. That was over 12 years ago and the love affair with Florence has only gotten stronger. She was named after my mother Florence, who would have loved her. And yes, Debbie does refer to her often as My Mother-in-Law, the car.

During the twelve years I have owned the car, she has been judged at both National & Regional events where she has won first many times regionally and has placed both first and third nationally. Florence won Third in Touring at French Lick in 1996 and First in Touring at this years National Meet at The Homestead scoring 95 points by National standards. And the quest continues....

Under the advice and invaluable guidance of people like Tom Morey, Tim Myrick, Robert Bell, Johnny Saunders and last, but not least, Ralph Curzon, I have completed the following work:

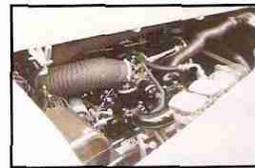
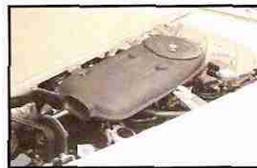
- New carpet,
- New headliner
- Refurbishing the leather
- Refinishing the wood
- Rebuilt a few of the window lifts
- Hand buffed all interior bright work,
- Replaced the clock
- Replaced all instrument lights
- Reconditioned all the power window buttons
- Reconditioned the opera mirrors
- Re-spray existing color
- Re-chrome a variety of parts
- Hand polished the stainless steel bright work
- Replaced the tires
- Polished and repainted the hub caps
- Replaced windshield seal



Engine Compartment-Reconditioned and repainted the underside of the bonnet and the firewall with the VW required color # paint. With the help of Ralph Curzon: rebuilt the generator, carburetor, starter, re-cored the radiator, replaced all hoses with the proper jubilee clamps, cleaned and re-painted the side panels, reconditioned the valve covers, replaced the water hose, thermostat, cadmium plated the vast majority of parts requiring re-plating, reconditioned even 1/2 inch of the motor compartment requiring cleaning & painting and replaced all of the belts and grommets on the car. Replaced and reconditioned some of the wiring.

#### Underneath-

Completely detailed the undercarriage, both cleaning, painting, polishing and buffing whatever was required. I tried to make it look as factory fresh as possible including replacing the front coil springs, rear leaf springs, and refmishing belly pans.



In November, Florence took another road trip out of Texas, this time to Mechanicsburg to be used for a **brake** seminar at RROC

Headquarters. What a great experience that was! For almost 40 she didn't look too bad. Every time I do something else to the car, Debbie hears me say again and again, "Well now that *that's* done, there isn't much left to do to the car." Famous last words? As I said earlier... and the quest continues.

Look for a new series of articles in the next Post "55" called DIY (Do It Yourself) with Ralph Curzon at his shop in Toronto.

Post "55" is a periodical of the Silver Cloud & Bentley "S" Society published four (4) times per year. Every effort has been made to publish accurate information, but the Society and its Directors assume no liability for loss or for damage arising from any information contained herein. Statements attributed to individuals do not necessarily reflect the official policy of the Society.

## Rolls-Royce Silver Cloud. II, III, and Phantom V Bentley S. 52 and S3 Society

### ***Smokey's New Clothes***

by Tim Myrick

As I finished up the last installment of Smokey's adventure, Ralph Curzon, Bill Habacker and I had finished taking the car



apart in preparation for the bodywork and the repaint. It was all a fairly straightforward process, but some aspects of the

removal process required a bit of a trick. For example, the window frames must have the pop rivets removed by drilling to get them out, but before that can happen, the motors must be removed and the window glass allowed to drop to get to the rivets. Another trick was removing the small waist trim. The small pieces in front, behind and between the doors are held in place by long tubes that act as long washers. These were very hard to get out through the small hole, and I did drop one in to the body cavity (where it will remain for the life of the car). Removing the webasto roof turned into quite an adventure as there are no cut away parts lists to reference, and each assembly is a little different. We made sure to take a lot of pictures to help in the reassembly. For added precaution, I spent some extra time putting the parts into small zip lock bags with copious notes. Now that the car had been

taken apart (and all the parts were tucked away under beds and in closets all over the house) it was time to start the stripping process. To begin, I removed the trunk hood and all doors. I tried several products before deciding on an airplane stripper. During the process of stripping, I discovered that the car had never been repainted, and the only bodywork was a small



dent in the left rear wheel arch about the size of a golf ball. I was also thrilled to find no rust in the car. I have never seen a RHD Cloud / S without at least some rust, but this one was

totally rust-free. It took 5 gallons of stripper to remove all of the paint, but when done, she looked great. The car was then taken to the paint shop by our local car club flat bed hauler (his number is now programmed in my cell phone). I chose a small shop that specializes in 60's muscle cars but also does work on many high-end Italian cars. I assumed that if he could make them look good, my car would be a piece of cake.

He started with the bodywork. Because all of the lead on the right side of the body had melted out in the fire, it had to be replaced. The curves were sculpted to match the right side to the left (quite a task). The car was then sanded to give "teeth" to the bare metal. After two coats of self-etching primer, it was sanded again. Next, the car was painted with three coats of the red oxide primer (as used by the factory) before being sanded and made ready for the final tinted primer. Throughout this process, I had yet to make up my mind on color. The original paint was Shell Gray over Midnight Blue. While I am a stickler for originality, I am not a "blue" car person, so I



decided to paint the entire car Shell Gray. I then contacted B. J. Jefferson who provided me with the correct formula for Rolls-Royce Shell Grey. With my color decision made, the doors, trunk and hood were refastened to the body to be painted with a light gray primer. Finally, the specially mixed color was sprayed followed by three coats of clear. Once dry, the entire car was micro sanded. Smokey was then delivered back to the house for reassembly. My next step will be to put the windows back in and reassemble the trim. See the article in the next issue of the Post "55" on installing the front window.



## Technical e-mail for July, 2002

Diagnosing Problems With the Oil Level indicator The fuel gauge has a dual purpose:

. fuel level indicator . oil level indicator

When the engine is not running (but the ignition switch is turned on), the oil level should be indicated when you depress the push button in the center of the dashboard fascia.

A basic description of the fuel and oil level sensors and the "change-over" switch (pushbutton) is given on page M39 in the Workshop Manual. In this note, I discuss the basic steps in diagnosing a problem and give a brief description of the mechanical parts.

If the gauge always shows empty or always shows full, the indicator is not working or is not working correctly. The oil level indicator is a very convenient way to get a rough check of the oil level on a trip. Obviously, the dipstick should always be used periodically to get an accurate assessment of the oil level. For those of you that are entering your car for judging, a non-functioning oil level indicator will cost you one point (out of 400) in judging at the national meet.

If the gauge does not change position at all when you depress the pushbutton, the "change-over" switch in the dashboard is the likely culprit. The switch is easily accessible, remove the two (2) screws on the capping rail light on SC II and SCIII and remove the lens, remove the four (4) fascia screws and gently remove the fascia. The changeover switch is bolted to the dashboard plate with two (2) screws. With the screws removed, the switch can be pulled forward to expose three (3) wires/connectors. With the pushbutton released, a continuity tester should show a connection between two (2) of the wires (the gauge and the fuel level sensor). When you depress the pushbutton, you should break continuity between these two (2) wires and establish continuity between one of the wires (gauge) and the third wire. The pushbutton is actually moving a metal shaft that breaks/makes contact with two (2) of the terminals. If the switch is not working properly, it will need to be replaced/rebuilt.

The oil level indicator is controlled by the fuel/oil

change-over switch and a float-operated rheostat unit located in the engine sump (oil pan), If your indicator is not working correctly, a step-by-step procedure is outlined below:

. Remove the under tray to expose the oil level sensor on the right side of the oil pan; it has a cylindrical housing, has one wire running to a terminal on the upper side, and is bolted to the engine pan by six (6) screws.

. Have someone sit in the car and turn on the ignition switch; use a power probe at the sensor terminal. When the pushbutton is not depressed, the probe should indicate no power to the sensor; when it is depressed, there should be power to the terminal. If the probe indicates the power to the sensor is correct, then the pushbutton switch and the wire from the switch to the sensor is OK.

. Remove the wire from the terminal and use an ohmmeter to measure the resistance from the sensor terminal to ground. The rheostat sensor has a resistance that should vary from 0 to 82 ohms over the travel of the oil level float arm. I checked a used unit and found the resistance to vary from 4 to 85 ohms. If the resistance is in the correct range then the oil level gauge should indicate a level other than empty or full.

The sensor is constructed as follows:

. A cylindrical float is attached to a pivot arm. The float and pivot arm are visible and accessible if the sensor is removed from the oil tank.

. With increasing oil levels, the float causes the pivot arm to pivot through a larger angle.

. At the other end of the pivot shaft, another pivot arm swings through the same angle but this pivot arm has a contactor that rides up and down a plastic cylinder wrapped tightly with bare wire. At larger angles, the contactor is farther down the cylinder and hence the conducting length (resistance) to ground is larger.

If the resistance is zero, or close to zero, check the sensor terminal. The wire and post of the terminal must be insulated from the body of the sensor housing so the current passes through

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the terminal post, through the resistance of the sensor, and then through the ground provided by the housing. This means that you must also be careful when you attach the wire to the terminal. The wire must be electrically insulated from the body of the housing. There should be a strip of insulating material to keep the bottom and side of the connector from conducting to the housing. Another defect that could cause a zero, or lose to zero resistance, is a sensor float that has a hole and hence has filled with oil.

. If the resistance is extremely high, the rheostat is broken and must be replaced or rebuilt.

If the conditions are such that you need to remove the sensor, drain the oil pan, remove the six screws that bolt the cylindrical housing to the oil pan, gently pry the housing from the pan, and carefully turn and pull the sensor to withdraw the attached float from the hole in the oil pan. If the rheostat is broken, the internal parts can be inspected by removing the small rectangular cover to expose the internal pivot arm, and the conducting wire and connections. If the lead wire is broken, you may be able to restore the correct function by a simple soldering operation.

### **September Technical Email**

Engine Lubrication—Observation and Opinion... By  
James Pate

#### Which Oil is Best?

Quite a few owners are now using the synthetic motor oils (Mobil 1, Redline, and others) in their older Rolls-Royce & Bentley engines. Certainly the synthetic formulas are superior oils in both lubrication properties and resistance to temperature breakdown. The owner wishing to give his car the very best chance for survival in our hot desert conditions can reasonably be persuaded that the added cost of the synthetic oils is a minor concern, considering the present-day price of an engine overhaul. There are other factors though, which in my own judgment make oil-type selection just a little more complicated. The synthetic blends now being formulated for new automobiles are just fine for the V-8 engines found in our later cars, but for the six cylinder engines (both pre and post-war) please consider the following points before selecting the oil to be used in your car.

It is especially important to change the oil regularly on the older cars, at least once a year, at a minimum.

I change my own oil every June and December even if the car is not being driven much. The reason is that the older cars will always have a greater degree of blow-by past the piston rings. The Rolls-Royce six cylinder engines of the early post-war period for example, will experience nominally 18 cubic feet of blow-by per hour when running at quarter throttle and in the RPM range of 3500. This is actually very good performance for that time, and just about one half the blow-by expected of other engines of the era. The Rolls-Royce engines were exceptionally tight when new (piston skirt clearance at the bottom was zero), and the above figure is for an new or recently rebuilt engine. Even so, the amount of blow-by will be much greater on a well-worn engine, resulting in significant quantities of carbon, water, and other contaminants constantly entering the oil sump. Provided the cars are allowed to reach operating temperatures, the water will boil off through the breather pipe, but the carbon and acids will remain in the oil. This is why we must change it regularly, and long before the oil has otherwise started to break down (be it synthetic or regular). Do not imagine either, that the oil filter will fully protect against the deposits. Very early cars had practically no oil filtration and even the so-called full flow system, introduced with the 4.5 Ltr. MK: VI Bentley and late Silver Dawn models, was not a true full-filtration system. In this later case, the engine lubrication scheme included both a high-pressure and a low-pressure circuit, divided at the pressure regulator located externally, on the right hand side of the engine block. Only the high-pressure circuit to the camshaft and crankshaft bearings was fed by filtered oil. The low-pressure oil circuit in this engine type feeds the hollow rocker shaft and subsequently the rocker arms, push-rod ends, and both intake and exhaust tappets. Another low-pressure line goes forward to lubricate the camshaft gearing. All of this low-pressure oil is drawn directly from the sump and delivered without any filtration whatsoever.

Although it is not generally known, the major oil companies have been quietly reducing the detergent additives in premium oils over recent years. This is true also of the synthetic oil blends. The reason for this change is the clean-air regulations, requiring all new cars to have catalytic converters. The oil companies have reduced the detergent properties of modern automobile oils in order to prolong the service life on the catalytic converters. This is bad news for our older cars. We need all the detergent properties we can obtain in order to hold those carbon and other blow-by particles in suspension, and we do not have catalytic converters to protect anyway. This change in automotive oils therefore requires that we look around for more appropriate products to protect our precious older cars. Consider the great fleets of diesel trucks on the road, for they have similar I needs, and their mean rious blow-by *continued on page 12*

## How to Change the Oil in Your Car

J.W.

If you're anything like me, you pride yourself in being pretty handy with a set of wrenches and you are familiar with the various sounds your car makes as it ambles along life's roadways.

Just the other day, I was motoring with a friend who asked what the funny noise was whenever we turned a sharp right hand corner. Without hesitation, I adopted my slightly professorial / academic countenance, and staring off into the distance, pontificated on the differences there were between the products from Rolls-Royce and the lesser fortunate conveyances.

My friend listened politely, and after a few miles, cleared his throat and said matter of factly, "You don't know, do you." More a statement than a question really. And of course, he was right. I didn't have the foggiest. Always makes that damn noise when I turn right. Always has, always will. Doesn't seem to affect the operation of the car so who cares.

To like-minded car enthusiasts, I offer... the oil change.

We all know about oil. It's the stuff that drips constantly from somewhere under the car at the front end onto the pavement. Now it's all right when the pavement happens to be government property like a road, but park your valuable piece of British engineering on a friend's driveway, and the next day when it's daylight, you're assured of a phone call. It's always one of two things, a comment referring to your parking on the road next visit, or raucous laughter and snide innuendo regarding the build quality of British Automobiles. And then of course, the more you protest, the topic of Lucas rears it's ugly head. It's all down hill from there. Best to just hang up and don't talk to your friend for a couple of weeks.

But the car hasn't had an oil change since you can't remember when. Most likely last year sometime. It needs one now. So now we have all day, and we going to do it. Yessiree Bob, and we bought all the stuff too. We got a filter from Replacement Parts at the National Meet ten years ago. It's in the box on the shelf next, to the hinges from the screen door that got thrown out when your brother-in-law walked through it at Ellie's wedding in '98.

So you pull the owner's manual out of the cubby box and hear the crack as you open it to the chapter entitled "Engine Lubrication System". It informs the original owner's chauffeur, and now you, that this system "is of the forced feed, full-flow filtered type, and is diagrammatically illustrated in Fig. 3."

Fig. 3 is a cut-away of the engine from one of the ends, God knows which one, and anyway it's too confusing and you don't have the time to run a finger along the oil pathways, and it can't be as hard as all that 'cause your mechanic only takes just a cup and a half of coffee to do it.

Well, to quote the slice and dice man on channel 105, "It's just that easy, folks."

First, you have to drain the oil. Now a recent article you read but didn't really understand, mentions the differences between changing hot oil and cold oil. What I did, after reading this article, was to hook a tow rope up to the back of my pickup, and wrapped the other end around the end of the car chassis next to the battery, and pulled the car out of the garage — verrrry sloooooowly. I figured the guy that wrote the article knew more than me and what the hell; it's better to be safe than sorry. And besides, at the next local meet, I can say with some authority that it's far better to change cold oil. I always do. Gets all the contaminants out and nothings in the top of the engine. I can imagine saying this with a Gin and Tonic in my right hand. OK, so the car's out of the garage, and you put the jack under the front end. and make sure the saddle on the jack (that's the little cup-thing) is squarely under the flat piece of steel behind the power-steering ram (that's the thing that looks like it's part of a snowplow or similar apparatus).

Jack the car all the way up as high as the jack will go - at this point you may wish to think about getting more exercise. When you were eighteen, you could have done this a lot faster and your heart wouldn't have been racing either.

After getting up slowly so as not to black out, you stumble back into the garage for the two axle stands you bought at Napa because they were on sale and you felt good about walking out of the store like a real mechanic. Of course, upon reflection, you never actually saw a real mechanic in the store but maybe they shop early in the morning.

Placing the two axle stands under the front stabilizer brackets (that long steel piece that goes across the two chassis things), gently lower the jack so the car is resting, and I can't stress this enough, contentedly, on the stands. Check the stability of the car on the stands with the eye of the surgeon. This accomplishes two things. Firstly, it assures you that sliding under the car will not be your last act on this earth, and secondly, the car will now realize you are

*continued on page 10*

*continued from page 9-* not fully in control of the situation and you are not going to hurt it.

If you are fortunate enough to still have your Rolls-Royce supplied tool kit in the trunk, go to it now and pry out the proper fitting for the brass drain on the bottom of the oil pan. If, like me, you never got the opportunity to ever see this tool kit, you get two nuts of the close to proper size, jam them onto an old bolt you won't need again, and with the vise grips on the part of the bolt sticking out of the brass fitting, reef on the grips in a counter-clock rotation.

Fortunately you have managed to turn the fitting in the right direction and it is loosening, and fortunately, Messers R-R have had the foresight to envision this day. They have put several fine threads on the brass fitting so you can reflect as you slowly turn on the vise grips that when the oil comes out, it had better have a container to fall into. At this point go back to the garage and get something big enough to hold some 16 pints. (This actual amount will vary according to model and actual oil in the engine and you won't find this amount anywhere in the chapter entitled "Engine Lubrication System") You'll find the amount under "General Information" at the front of the manual. No I don't know why they do it this way. The guy that wrote this book also wants you to use "B.P. Energol S.A.E. 20 W, Wakefield's Castrolite, Shell X-100 20/20 W or Mobiloil Arctic".

Try finding any of those at Napa.

Just call your mechanic at home (the number's on the kitchen fridge) and apologize because it's Sunday morning and ask him what to buy when the parts store opens in a half-hour.

So now the old black oil and some lumpy stuff has drained out of the motor, and you put the brass plug back in. Fish around in the bottom of the oil for the washer to go on the brass fitting before you put it back. It's down there somewhere; just don't get your sleeve all oily.

**Jack** the car back up - same method as before, and then remove the axle stands. I always use the two-foot rule. Make sure the stands are at least two feet away from the car before you lower it. Don't ask why I have adopted this rule.

Now, with the car once more on it's four tires (or tyres if you prefer), the serious work will commence. Now would be a good time to clean those hands and open up the box containing the filter.

Now if you're like me, you invariably have a few parts left over after projects. I allow for a five percent surplus. Unless a strange noise or shaking is immediately evident, everything's probably all right.

Inside the box, there are several items of interest. Don't bother looking for a listing on the box. The only thing on the box is some stamped number like RH 10003. That tells you a lot. Just take everything out and place it in a neat row far away from the car - unless you want to kick the various pieces into another dimension when you go from one side of the car to the other.

Lift the two sides of the hood - bonnet - whatever. What you want to see is the thing that holds the filter. It's black and is hiding under the long black thing that runs along the side of the motor with the two carburetors. The reason the filter-holder is hiding is because it's in charge of making sure the motor is always supplied with clean oil, and anyway it doesn't want your grubby paws all over it (See High School Health textbook - Chapter One: First Date).

Do not be intimidated by the oil filter thingy. It will yield under the stronger power of your chrome-moly drop-forged one-inch open-ended wrench. That's the one you never use, at the end of the wrench set in the third drawer down in the trusty red tool cabinet. Well, boyo, you get to use it now.

Now the object of this exercise is to loosen the plated nut on the top of the filter thing. The object is not to bash the foot-long wrench about inside the engine bay, chipping the paint etc. After all, you're a surgeon, remember?

The nut will be hard to remove because the gorilla at your mechanic's place last year tightened the damn thing with a three-foot pipe wrench. Just be patient. It'll loosen.

Loosen it a couple of turns and then try to turn the filter holder from the bottom. Note that you should turn the filter holder or bowl to opposite way from the top nut or you'll end up tightening it again. Don't ask how I know this.

When you have turned the bowl for about what seems like ten minutes, it will take advantage of the situation and try to jump from the securing nut down into the abyss of the engine bay and bleed black blood, Texas T, Black Gold. The stuff that Jed Clampett shot with his varmint gun.

*continued on page 11*

*continued from page 10-* This is of course a deception in order for the filter holder to run and hide under the motor somewhere laughing at you from the relative safety of one of the splash pans. Do not release your grip on the bowl. You are smarter than the bowl.

Now carefully - It's important to note that throughout this process, you must always do things either slowly or carefully - lift the filter bowl out of the engine bay and across the fender without dropping the thing. Sure it's slippery but you're the surgeon, remember.

Drain the old oil from the filter bowl into the rest of the old oil in the plastic pan from under the sink in the basement kitchen. Carefully remove the filter and place it in the oil. Drain the remainder of the oil in the bowl into the pan and then the fun begins.

Now you get to disassemble the contents of the bowl. You already took out the filter, now you can take out the little cork donut with the aluminum hat. And the two-inch spring. (You'll get to curse this spring later)

All you folks with that new-fangled V8 engine are a little lost. Don't worry. This part of the article is for the six-cylinder crowd. You get to laugh at their antics in this article. Next article we'll cover spark-plug removal. You won't be laughing so much then, will ya fella.

OK, so wipe the inside of the bowl with a clean paper towel. Put the two-inch spring back on the shaft. Put the new cork washer in its little hat onto the shaft and put the new filter (nipple up - It really says that. Guess they weren't so politically correct when they printed the Filter Installation Sheet twenty years ago). Anyway put the filter with the metal hat with the holes in it on the up side, and slide it over the shaft as well.

You're almost done, champ. Put the filter holder down a safe distance from the front of the car and get a really small screwdriver with a really thin blade. Go back to the car and reach over the fender. What you want to do is remove the big rubber O-ring from under the aluminum filter holder cap. You can't see the O-ring. Just gently put the screwdriver up along side it and pry it out of the cap. Don't damage the cap. It's really expensive. I had this friend once who sandblasted a brake servo cover... but anyway, that's another story.

Make sure there's not another O-ring on top of the one you just removed inside the aluminum cap. Mistakes happen in the heat of oil-changes.

Now take the larger O-ring from the new filter box and tuck it gently inside the aluminum piece. Use fingers only for this application. You don't want to nick it or your mechanic will laugh at you when you bring the car in for the rest of the tune up. Mechanics are all knowing. You can't fool them. They will instinctively know if you've done something stupid with the car.

OK. The new O-ring's in place. Now get the filter bowl and return to the car. With your left hand under the bowl, lift it up as hard as you can into place under the aluminum cap and with your right hand, turn the plated nut on the top so it mates with the threads on the center shaft of the bowl.

Your third hand will steady you as you lean across the fender with your feet in the air and your fourth hand will want to assist your first hand in forcing the filter bowl into position. Now you curse the two-inch spring.

Don't know why it is, but every time I change the filter, that spring gets stiffer when it's out in the air. Why they couldn't have lengthened the center shaft is beyond me. Classic case of engineers designing things they never have to work on.

Now is not the right time to realize you forgot the washer that goes on the filter bowl securing nut. We'll assume you didn't kick it out of the way and let you tighten everything together again.

**Dump** the correct amount of new oil into the other side of the engine. That's the little door with the catch that states you should change the oil every 5000 miles. Just put in the standard 16 pints or whatever it says in the owners' manual.

Clean your hands and get into the car. Ignition key inserted. Don't touch the accelerator. Just let the starter crank the engine. Everything's dry in the top of the motor because you changed cold oil, remember?

Watch the oil pressure gauge. After the engine starts, at about the same time as you feel the hairs on your neck, and you're just about sure something's gone horribly wrong in the process, the little white needle inside the gauge will tremble and slowly get back to more familiar territory.

*continued on page 12*

*continued from page 11-* Hey, you got pressure, now get out of the car and look underneath to see if everything's tight. No leaks? Great. You just changed the oil and the filter. Just like the big shops do. Go have a latte. You've earned it. And besides, how many other latte slurpers at Starbucks on this Sunday morning just changed the oil in the Rolls?

*continued from page 8-* huge numbers mean that their needs are being met. With their 16 to 1 compression ratios, the diesel engines also have a serious blow-by problem & the diesel fleets do not use catalytic converters either. Therefore, the major oil companies all market oils especially suited for the diesel truck fleet, AND those products do include the high detergent levels that we also need. In fact, at this point in time, the diesel oils seem to be just the product we are looking for. I suggest that all owners of the older cars (those without catalytic converters) consider switching to a quality-brand, diesel engine oil. That way, the blow-by contaminants will be held in oil suspension for just as long as is possible. Then, with regular oil and filter changes, it is the oil that will be dirty rather than the innards of our engines. Shell Rotella T is one such product, which is easily available in 15W-4Q multigrade. For those insisting upon synthetic oil, do not worry, the competition for all that diesel business has also produced synthetic blends. I recently purchased a case of Valvoline Premium Blue 2000 in 15W-40 from the NAPA outlet located behind the Rio hotel on Valley View. The boss there uses this product in his new diesel pickup so the supply should be dependable for the foreseeable. This particular product is especially interesting, as it was specifically developed for needs similar to our own in cooperation with Cummings Diesel, Inc.

#### HOW TO BEST CHANGE IT, HOT OR COLD?

From our early youth, most of us learned that the basic reasoning regarding oil changes requires that we drain the old oil out while the engine is still hot. That way, the oil is thin and the contaminants are still suspended. Sounds like good solid judgment so we go forward and never question the matter. Were I a shop owner, I would still offer this advice, for it also happens to be the only way a firm could hope to turn a profit. For the rest of us though, please consider this matter with some care. I have for some time now been persuaded that with our six-cylinder Rolls-Royce engines it makes far more sense to drain the oil when it is cold. The colder, the better, I now believe.

Have you ever started up your older R-R after it had sat unused for a week or more? If so, perhaps you noticed that several seconds, actually up to 8 or 9, elapse before any oil pressure registers on the gauge. One then remembers that if the engine has recently been run the oil pressure comes up almost instantly. So, we are already aware that if the engine is allowed to cool for days (and not just for minutes) quite a lot of oil drains into the sump. These engines do not use high oil pressures, but they

certainly do employ high volume in the oil flow. If you have ever overhauled the oil pump on one of our cars this will be self-evident. Yet, even with a high-volume pump a long dormant engine will take eight plus seconds to fill all the internal voids? Yes, it certainly will and you have probably noticed and worried about this phenomenon. The first priority in draining old, dirty oil is to remove just as much as possible. Remember that the crank is hollow and it contains rather a lot of oil, which will take a day or more before it fully drains past the bearings. Even the cylinder head and valve gear oil will take hours to drain down. As the engine cools, oil is also drawn back from the filter bowl (admittedly, this point is somewhat moot providing the filter will also be changed). Should you doubt the point I am making here, I can tell you that tests have been conducted, actually weighing the amount of oil drained using both the hot and the cold method. The results were convincing, at least to myself. Another important advantage of draining the oil after it has completely cooled, relates to the very real problem many of these particular engines have with internal water leakage. If the oil is first allowed to cool, any suspended water droplets will settle out at the bottom of the sump. I always drain the first pint into a quart glass jar (done while the drain plug is still in by a few threads but loose enough to leak a good flow). If there is an internal water leakage problem with the engine it will then be obvious.

The care of our old cars is important to us or we would not have formed a club to share ideas. All the above is only opinion offered in the hope that it will encourage both thought and argument, for that is how we all will realize maximum benefit from our membership in this great organization.

