

Dealer Progress



Winter changeover
begins at
the pump island

See page 2



Dealer Progress

© 1968 Union Oil Company of California
 DON P. McCAULEY.....Editor

This is your publication. DEALER PROGRESS is published for Pure Oil Dealers under supervision of the Marketing Department, Pure Oil Division, Union Oil Company of California.

WINTER CHANGEOVER BEGINS AT THE PUMP ISLAND



What do you do when you raise the hood of a car stopped at the pump island for service?

Check the crankcase oil dipstick? Battery electrolyte level? Signs of engine overheating? These are standard procedures for all service stops—but, do you let a practised eye go a step further and visually inspect other engine components and under-the-hood systems?

Do you look for frayed or loose drive belts? Cracked or burned battery cables?—badly corroded posts and clamps? Do you check plugs for cracked or fouled insulators?—visibly worn cables? Do you look at the oil filler cap and PCV valve for signs of clogging? Does an engine block covered with oil and grime suggest leaks? Or a build up of rust, some defect in the engine cooling system? You should.

Now is the time to start working on lucrative winter seasonal business. A majority of car owners in the northern latitudes have to be reminded and sometimes gently nudged into a realization that winterizing service performed early will save time, trouble and added expense when temperatures take a sudden nose dive.

Most Pure Oil dealers know the important areas to cover in this semiannual changeover. However, this abbreviated check list may serve you as a reminder and help swell your Fall 1968 volume of service and TBA sales.

Start with the battery. On the back cover of this issue is an account of the October "Test Your Battery Week" promotion. Plan to tie in with this excellent publicity by offering free battery tests for every car driven in. If a test reveals a new battery is needed, stress that now is the time to replace it—not when the battery finally dies some cold morning in December or January.

Check the anti-freeze tag or sticker every time you raise a car hood. Any car two years old or any earlier model with two-year old anti-freeze in its cooling system is due for a complete drain and refill. Aside from the protection a refill affords

Talk tires, talk tune-up, talk anti-freeze, talk oil change, talk about everything with your customers. Point out the things he really needs (and there are a lot of them) and he will usually buy.



against cooling system freeze-up, the rust and corrosion inhibitors have lost their effectiveness after two years and need to be replenished by a refill. Merely adding a quart or two of new anti-freeze is not sufficient to protect the system from rust and corrosive contaminants.

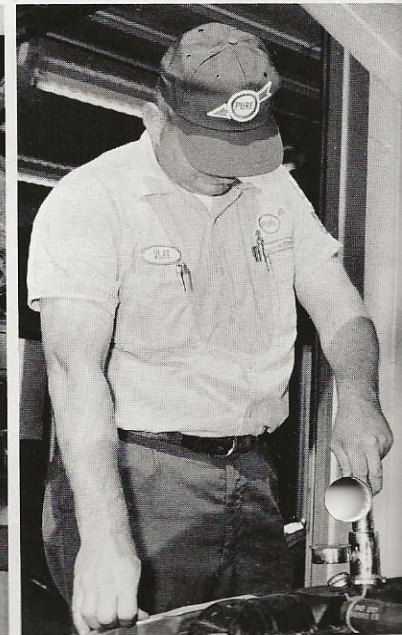
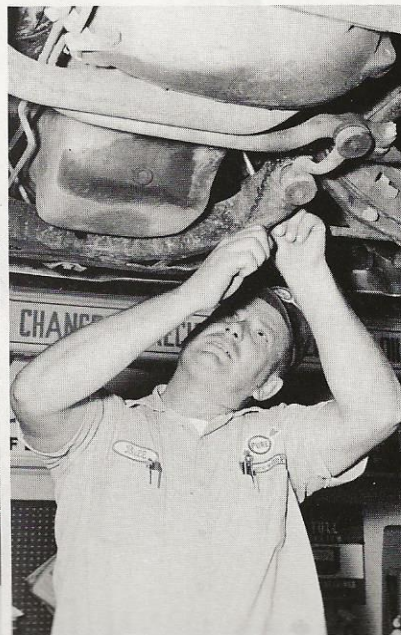
Engine oil that has been in the crankcase for more than 60 days must be drained and refilled with the recommended grade for winter service. Most car owners are agreeable to this type of preventive maintenance, especially on late model cars where it is required by the new car warranty. But many motorists do not know that in addition to engine lubrication, a Pure High HP oil change replenishes the important anti-corrosion additives which help keep the engine clean and easier to start on cold days. The only way to get these additives into the engine is by an oil drain and refill. And don't forget a new oil filter with a winter changeover.

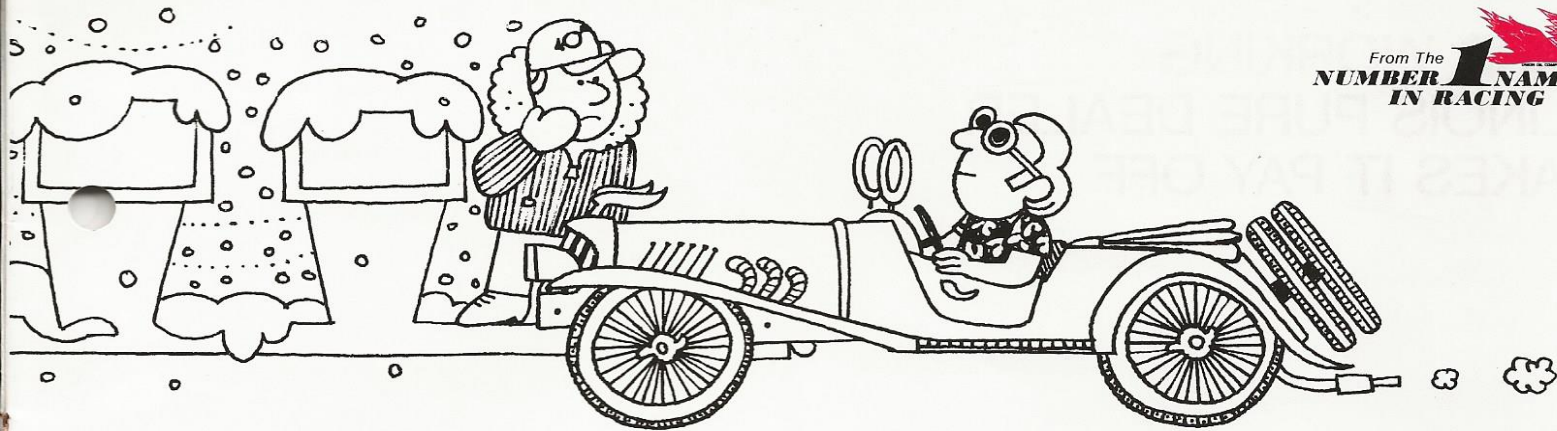
When you stop for a moment to think about it—you have an opportunity for winter changeover service every time you raise the car hood. Of course, quick island service is important. You can't tie up a car while you make a detailed check under the hood. Often, however, these possible trouble areas are so apparent that you can justify calling them to the driver's attention and suggest that the car be pulled into a service bay for a more complete check.

But—the driver sitting at the wheel isn't going to open the

Chassis lubrication is another service where you find relatively little sales resistance. Use your Pure Car Care Service Guide to call attention to factory warranties . . . you can sell a lot of other needed and profitable services this way.

Check the anti-freeze tag everytime you lift the hood. Routine checking of radiator can lead to other sales.





subject. This, you must do. We don't know why it should be, but frequently there is a reluctance on the part of servicemen to call these indications of trouble to the attention of the owner. Perhaps it's because they feel they may be regarded as "high pressure merchants" and fear that they will discourage service customers from returning.

This is hardly a valid reason for keeping mum. You'd have a pretty poor opinion of a physician who deliberately overlooks some corrective measure to improve a patient's health. You're just as concerned with making certain the cars you service are in top, safe operating condition.

The whole matter is one of approach. Adopt a professional manner which immediately instills confidence and respect for your knowledge of automobiles and their performance. Don't say, "You'll have to get new plugs"—that immediately puts the car owner on the defensive. Say something like: "I don't like the way a couple of those spark plugs look. Do you mind starting up the engine so I can check them out better?" Now, the problem has become cooperative—the owner is made to feel his own responsibility for good plug performance or whatever the other trouble areas may be.

The manner of approach differs, of course, with the individual, but the results will be the same. Some station operators have set up a step-by-step program to be followed by all island attendants in making underhood visual inspections. Usually, these require less than two to three minutes, including the dipstick, radiator and battery checks. It's important though, to know what to look for and how to interpret the telltale signs of

impending trouble. Avoid wasting your time—and your customers'—by making general recommendations that subsequent checking may prove unwarranted.

Chassis lubrication is another service where you find relatively little sales resistance. Use your Pure Car Care Safety Service Guide to call attention to the factory recommended lubrication intervals which are also mandated by new car warranties. Check transmission, power steering and brake fluid levels. A summer of hot, extensive driving may have lowered them below safe operating limits.

Then—there is engine tune-up. Checks and tests of the charging, ignition, fuel and exhaust systems are in order for cold weather starting and driving. Replacement of spark plugs, points, condenser—engine timing and carburetor adjustment—are all necessary to insure trouble-free operation.

While you're about it, check the condition and tension of alternator, power steering pump and air-conditioner compressor drive belts. A worn, frayed belt or one which cannot be properly tensioned, can be a trouble factor.

Regular or snow tires and, where permitted, studded tires for winter driving are another profitable winter changeover service. Inspect tires thoroughly. If treads are down to a depth of 1/16 inch or casings show cuts and fabric breaks, now is the time to get your customers thinking about replacing them.

Finally—give the car a complete safety check from roof to chassis—inside and out. Check for loosened or worn parts, missing bolts and screws—knobs and handles. Replace faulty locks, missing seat belts, dead wiper blades, burned out lamps. Make certain windshield washers and defrosters are operative.

This kind of service will insure your customers safe cars for the rigors of winter driving. And their satisfaction will be exceeded only by your own when totaling your daily sales of Winter Changeover Service.

Getting under that hood and checking everything is the first step to Winter change-over.



Once you get the car on the rack you may find other sales. A simple wheel packing led to this complete brake service.



HARD WORKING ILLINOIS PURE DEALER MAKES IT PAY OFF

"You get a car up on the rack for more than just a grease job" says Burch. "There's where you have the chance to see what's wrong and sell a lot of TBA."

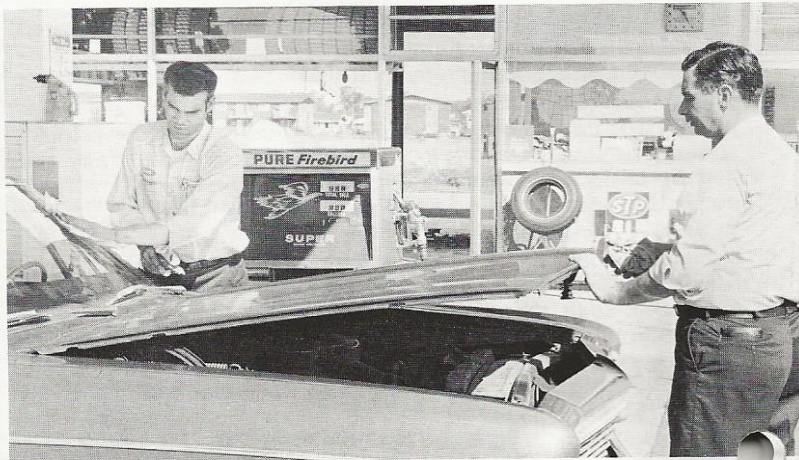


Ralph Burch is an Elgin, Illinois high school drop-out who learned the hard way that there is no substitute for a sound, basic education. Eager to pocket "big money," he cast his books aside in the late 1940's and began driving a truck. For a while, he was satisfied that he had, indeed, become a member of the affluent society. . . .

Some 13 years later, however, Ralph made a painful discovery: already past 30—with a wife and three children to support—he was getting nowhere fast. As a former drop-out, he lacked basic knowledge and really had no future at all. Just another monotonous day behind the wheel. And the same unchanging weekly paycheck.

Deciding that he wanted something more out of life than this, Burch embarked upon a challenging program of self-education. He knew that to get ahead, he would have to master the educational fundamentals he had left behind long ago. It wasn't easy, but Ralph finally made his mark. Today, at 39, he operates one of the newest and most lucrative service stations in the Greater Elgin area—Ralph's Pure Oil, at 1580 Larkin Ave.

Fast, two man service by Randy Lockhart (left) and Ralph Burch is a must whenever possible.



Modern 300R design station is the latest word in architectural styling. Stone, steel and glass are blended to give the unit a distinctively pleasing appearance.

Beautifully designed station

Burch expresses tremendous pride in his new 300 R Pure Oil station—and quite justifiably so. Located across the street from Larkin High School, on the city's western edge, it is the last word in modern architectural styling. Stone, steel and glass are blended to give the unit a distinctively pleasing appearance. There are two pump islands—both protected from the weather by a trimly designed canopy.

Access to the station's three-bay service center is gained from the rear, an innovation other oil companies are beginning to adopt. Ralph points out that this helps to keep the main driveway open and uncluttered, thus giving the station an efficient look that bids welcome to passing motorists. The glass-enclosed facade is not only visually appealing, but functional as well, since the pump islands are always in full view.

Burch stocks a diversified line of TBA products, all of which carry either Pure Oil or AC brand name labels. Pure Pride tires are selling well, he reports, as are AC plugs, filters, accessories and other products specifically designed for the aftermarket.

"First thing I try to do is get under that hood. You don't sell any oil by not checking it. 9 out of 10 customers couldn't tell you within a thousand miles when they had their last oil change."



Ralph specializes in light service work, including tune-ups, brake and wheel repairs, and all types of minor adjustments. "We're well equipped," he said, "but we have no desire to tackle anything in the way of major overhauls."

Ralph's formula for success is deceptively simple: "Hard work (16 hours a day) in combination with the finest dependable service." His ability to attract—and hold—customers is indicated by the fact that many of them have "moved" with him to his new location.

"This is extremely gratifying," he said. "Most people know that it takes a while to work the kinks out a new station. But I think we've done quite well in this respect—to the best of our ability, we've tried to establish a reputation for sharp, professional service." Ralph's Pure Oil is open from 6 A.M. to 10 P.M. Monday through Saturday, and from 8 A.M. to 6 P.M. Sunday.

Financially, Burch says that his new operation is doing reasonably well after a year and one half of operation. "We're about 'on projection'," he commented. However, Ralph smiles broadly when he contemplates the future—and for good

reason. Elgin is moving west and his corner location is in the heart of the city's fastest growing residential area. Immediately to the north, behind the station, is a large tract which will become the site of a major Jewel-Osco shopping center this October. To further brighten the picture, St. Joseph's Hospital recently announced plans for the construction of a large, modern medical care center two and a half blocks west of Ralph's location. There is a large apartment complex close by that adds a lot to monthly gallonage.

"Elgin is expanding rapidly," Burch said. "New industry is moving into the area and, of course, many people who work in Chicago are establishing homes here. We look forward to growing and progressing with the community."

Burch and his full-time station assistant, Randy Lockhart look confidently to the future. "I expect that a year from now, we'll be pumping a minimum of 25,000 gallons per month. In two years, we'll be up to 30,000 gallons—with luck, 35,000," Ralph predicted. Underground storage capacity is 20,000 gallons. The corner station is well-lighted, easily accessible from either side street, and can comfortably accommodate 20 cars in its spacious parking lot.

SELL'EM STUDDED TIRES FOR SAFETY IN SNOW, MUD & ICE

Motorists using studded winter tires improve their chances of getting through the coming ice and snow season unscathed, according to tests conducted by a major tire manufacturer.

The tests were run last year on frozen Pine Lake, Wisconsin, to complement similar tests made on behalf of the National Safety Council.

The testing revealed that studded winter tires sharply outperform unstudded winter tires on snow and ice and provide equally effective traction on wet and dry pavement.

Also measured was the effectiveness of studded tires when they are new, versus when they are worn. For this comparison, tires were used that had been run for 2,500 miles by an independent test fleet in Texas.

In the comparisons between new studded tires and used ones after 2,500 miles, there was no appreciable difference in performance, according to the tests.

Tests to rate stopping ability on glare ice were made at 20 mph, standard speed for such measurements.

Compared with glare ice stops made with regular highway tires on all four wheels, it was indicated that cars with two regular winter tires stopped 5 per cent better; cars with two studded winter tires stopped 32 per cent better; cars with two studded tires on rear wheels and two studded rib-type tires on front wheels stopped 40 per cent better; and cars with chains on rear wheels stopped 60 per cent better.

Another series of tests concerned the ability to turn corners on ice with minimum slippage and loss of control. The best performer in this category was a combination of studded winter tires on rear wheels and studded rib-type tires on front wheels. Cars using this combination consistently rated 50 to 75 per cent better than those equipped with ordinary highway tires. Cars put through the same cornering tests, with chains on rear wheels varied from 10 per cent worse to 10 per cent better than those using regular highway tires.

Skid resistance on wet and dry road surface was measured by a special trailer on which the brakes can be locked while instruments measure the friction between tires and road surface. These tests were made on brick, asphalt and concrete, under both wet and dry conditions. There was no appreciable difference in skid resistance between regular winter tires and studded winter tires.

Three types of snow tires in the Pure line

Now for the first time, you can offer your customers three different types of snow tires. The top line Super Silent Snow, the economy Silent Snow, and the all-new Super Silent Snow S-70. This new tire is of the wide oval design to fit those sports cars that already have original equipment wide-ovals, or Pure Sports S-70 tires installed.



Pure super silent snow for sure winter traction and safety

Wide, extra-deep tread design! Over 2,680 gripping edges bite into snow and mud for sure traction all winter long. Smooth, quiet riding. Full nylon cord body, rugged Polybutadiene rubber for long tread life. Its 4-ply construction gives it the required strength to withstand the most difficult operating and temperature conditions. **Molded holes for studding at your station.**

ONE TIME ORDER FOR: PURE TIRES	Discount per unit on			
	10 TIRES	50 TIRES	100 TIRES	250 TIRES
SILENT SNOW	\$.50 ea.	\$1.00 ea.	\$1.25 ea.	\$1.50 ea.
SUPER SILENT SNOW	1.00	1.50	2.00	2.50
SUPER SILENT S-70	1.50	2.00	2.50	3.00
PURE PRIDE	1.00	1.50	2.00	3.00
SPORTS S-70	1.00	2.00	3.00	4.00
PRIDE FIVE STAR	2.00	3.00	4.00	5.00

Additional fill-in bonus

All dealers who get a one-time delivery of 50 or more tires automatically qualify for earned discounts on all fill-in orders of 10 tires or more for the balance of 1968.

Studded tires are becoming more and more popular with the motoring public, and it's very profitable for Pure dealers to be in the studding business. The above "Early Bird" bonus discounts are yours for a *one-time* delivery of Pure Tires. Any combination of tires, including truck, Safety Cushion, or Pure Cushion can be counted in a qualifying order.



**Pure silent snow —
economy snow tire**

A good quality snow tire with a budget price tag. Special traction tread design digs into snow and mud to keep you going through the winter months. Strong nylon cord body and durable Polybutadiene rubber. **Molded holes for studding at your station.**



**The all new Pure
super silent snow S-70**

In keeping with modern tire design trends, the new Super Silent Snow S-70 is the answer for your customers who want to have the wide oval design tires on their car all year long. This first line tire is built to provide maximum comfort, safety and long life. The new Super Silent Snow S-70 has a heat-stabilized, pre-stretched nylon cord body similar to the Pure Pride .4-ply construction with Polybutadiene tread compound for long road life. Special sidewall buttresses provide added traction, along with extra support and protection against wear and curb damage. **Molded holes for studding at your station.**

UHV TOMORROW'S IGNITION TODAY

By Roger Huntington, ASAE

REPRINTED FROM
OLDSMOBILE ROCKET
CIRCLE MAGAZINE

How would you like an ignition system on your next car that never misses or stumbles when you gun the engine after idling or slow city driving? That has no contact points to replace? That starts instantly in cold weather when ordinary contact points might misfire from moisture and corrosion? That doesn't gradually lose pep and pickup because the contact block wears and the spark timing "slips"?

Sounds like a futuristic ignition system?

Oldsmobile can give all this to you *today*, on your next car! I'm talking about the new "Ultra-High-Voltage" (UHV) ignition system that's optional equipment on any '68 or '69 Oldsmobile using a 400-cubic-inch engine or larger. Believe me, it's worth every nickel if you're finicky about instant, reliable performance.

How does it work?

You have to understand a few things about ordinary ignition systems first. Here, we generate the high-voltage spark plug current by putting the 12-volt battery current into the coil through the contact, or "breaker" points. When the points break open, the magnetic field in the coil collapses suddenly and kicks up to 20,000 volts to the spark plugs through the distributor. The 12-volt battery current provides the punch to charge the coil. But, there is a limit to how much punch can go through the contact points. Too much, and they would just melt and burn up. This is why you have difficulty in firing spark plugs that are fouled up with carbon and soot and oil. And this is the big reason why you have to replace spark plugs regularly. As the plug electrodes gradually burn and wear away, it takes more and more spark energy to jump the gap.

The contact points themselves gradually wear and burn away and they, too, have to be replaced regularly. Also, the points are opened and closed by a fiber block that rubs against a steel rotor. As this block wears, the spark *timing* gets later and later, and the engine gradually loses pep and power. You've all noticed how peppy your car feels after a tune-up. Most think it's the new spark plugs. Actually, the big reason is that the mechanic has readjusted your spark timing after installing new points. But, that can start to lose its new-found power. It could be restored by readjusting the timing again.

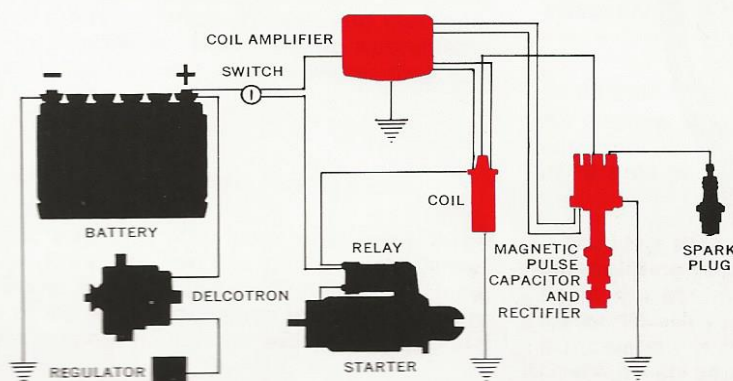
Oldsmobile's new UHV ignition virtually does away with all this. For one thing, there are no contact points at all. The spark is "triggered" by a little magnetic rotor (within the distributor) that spins with the engine and generates tiny pulses of electrical energy at the exact time the spark should fire in each cylinder. These pulses are then stepped up in a transistor circuit to give enough energy to trigger the coil. The beauty is that there's no rubbing contact here, no points that open and close, nothing to wear out. The magnetic rotor never touches the pulse pickup. And, of course, your spark timing would never slip with a deal like this because there's no rubbing block or points to wear. Timing remains exactly where you set it indefinitely.

Then, UHV ignition is entirely different in the way it generates the spark energy. It doesn't feed only the current of a 12-volt battery directly into the coil; it uses the battery current to "pump up" an electrical condenser, or capacitor, something like pumping air into a tire. The capacitor literally *stores up* the energy, then *explodes* it into the coil when the distributor rotor gives the signal. There's current from about 400 volts going from the capacitor to the coil—and current from more than 30,000 volts flowing from the coil to the spark plugs. Like enough energy to curl the hair on a brass monkey!

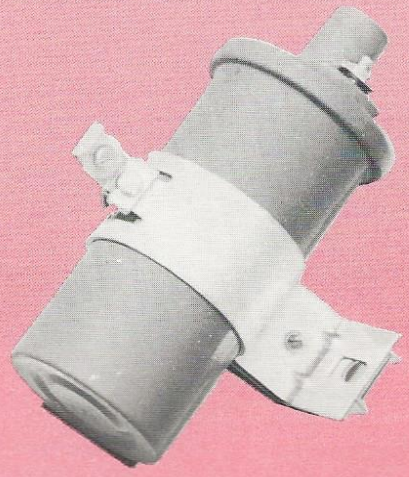
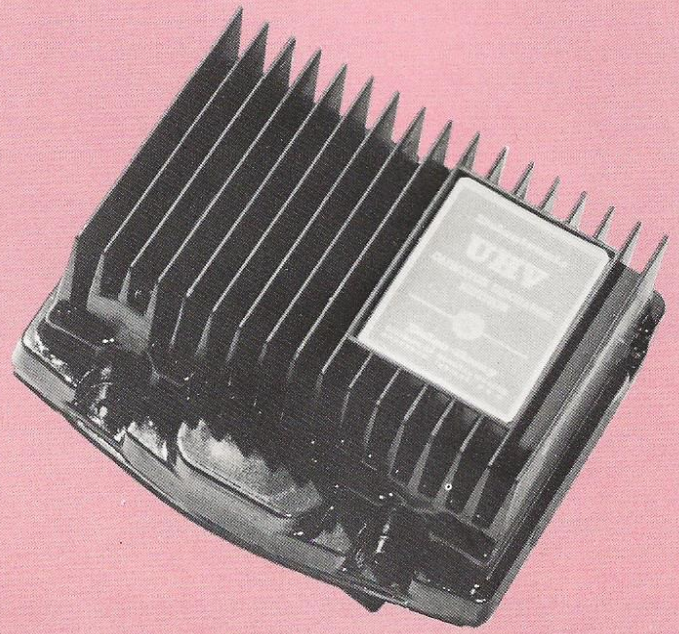
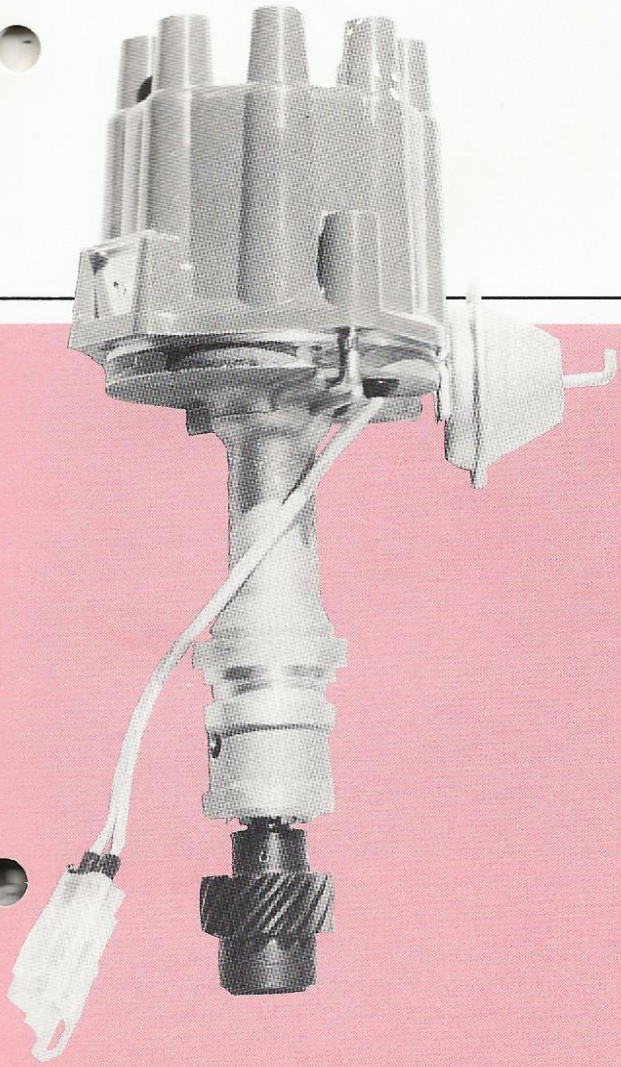
It's this tremendous spark energy that's the real secret of UHV ignition. It can fire plugs under almost any condition. They can be coated with soot and oil. I've seen a demonstration where UHV ignition fired plugs that were lying in the bottom of a can of oil! This is why you get no misfiring when you gun the engine after long periods of idling or stop-and-go city driving, when plugs usually get crudded up with soot and deposits. It just fires right through the stuff.

And plug *wear* makes no difference. Electrodes can burn away until the gaps are three or four times original size—and they keep firing merrily away. Olds engineers recommend changing plugs at 24,000 to 36,000 miles with UHV ignition, but it's not critical. Plugs just seem to go and on.

See why I call this "tomorrow's ignition today?" Seems like a bargain at the price.

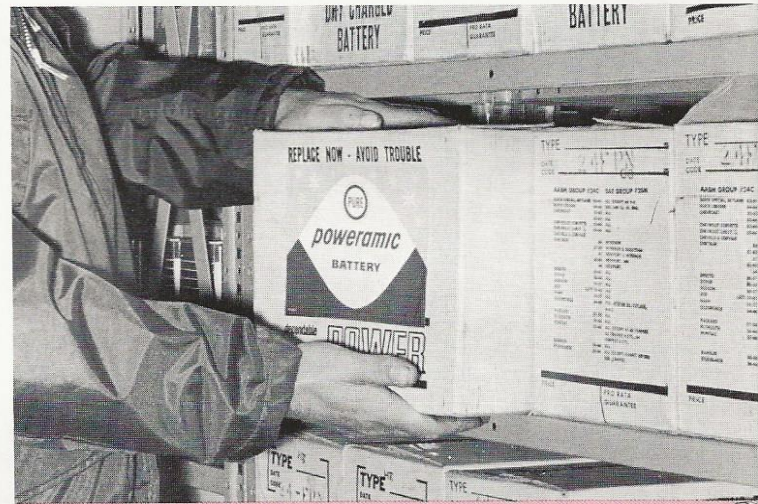


**ULTRA
HIGH
VOLTAGE
IGNITION**



HOW TO ACTIVATE PURE DRY CHARGE BATTERIES

follow these
6 easy steps for
greater power,
longer life and
customer
satisfaction



STEP 1

Store dry charge batteries in a dry area of your station. Choose the place where temperature is warmer but changes least, such as inside a stock room. Keep the acid nearby.



STEP 4

While new battery is being charged, remove old battery from car and inspect and clean battery cables and carrier.

a thorough dry charge means
fresh batteries every time

From The **NUMBER 1** NAME
IN RACING



STEP 2

Fill each cell with acid electrolyte to just over the separators (no higher).

STEP 3

Boost charge 12-volt batteries at 30 to 40 amps. until acid electrolyte reaches 80°F and 1.240 specific gravity on Hydrometer. *Both conditions must be met.* (charge 6-volt batteries at 60 to 70 amps.)



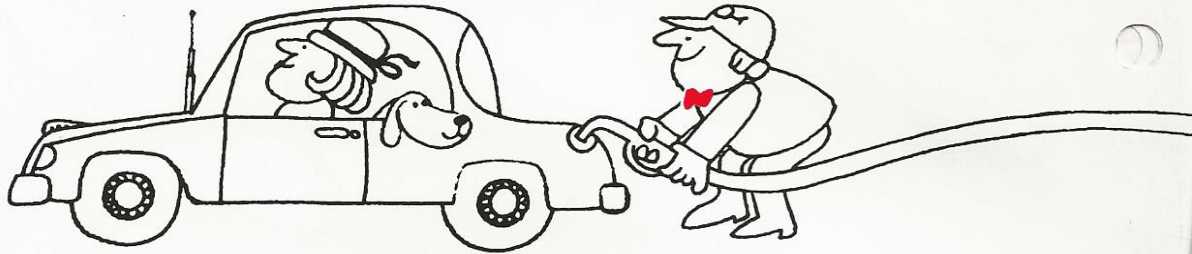
STEP 5

After new battery is fully activated, add more acid electrolyte to bring level to proper ring in vent opening.

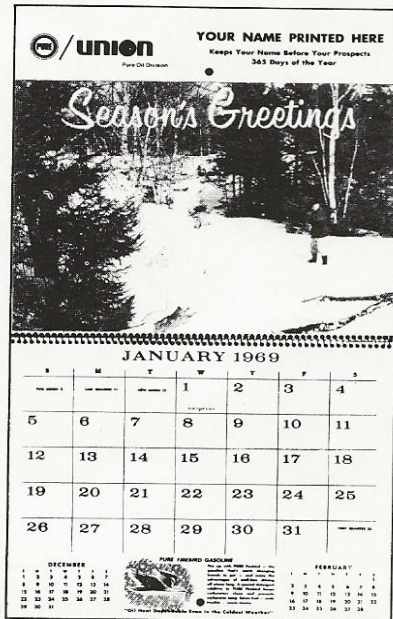
STEP 6

Install battery in car. Carefully clean posts and inside of cable terminals. Use cable terminal spreader to seat terminal completely. Tighten securely. After connection is complete, a protective silicone spray may be applied to outside of terminals.

PURE ROUND-UP NEWS



Are calendars used in homes?



You bet they are! In a survey conducted this year, some amazing facts about the use of calendars were uncovered.

- 98% of all homes interviewed had one or more calendars in active use. 21% stated that they wanted more calendars than they had received.
- Of the homes interviewed, 86% knew the names of advertisers on their calendars. An additional 13% recalled the product or service, but not the exact company or brand name. *Only 1% failed to remember who gave the calendar to them!*
- 77% used the products or services of the advertiser on the calendar. An additional important benefit to the calendar advertiser was disclosed when 19% said they used a calendar to get the telephone number of a firm they wished to call. The report continued, "The company whose number is readily available on a calendar obviously has an advantage over the firm whose number has to be located in a directory."

As you can see, it pays to advertise and give away your own personalized calendars. For order forms, see the back cover of the June-July Dealer Progress, your Pure Salesman, or write to: 1969 Pure Oil Calendar, U.O. Colson Company, Paris, Illinois 61944.

World's greatest buy in a barrel

A 132-piece Dinnerware Ensemble plus an authentic wooden sugar barrel can be yours with a qualifying order of AC products. This exciting \$76.90 value consists of 65 pieces of Mermac Dinnerware, 32 Anchor Hocking glasses, a 26-piece Anchor Hocking Punch Bowl Set, and a 9-piece Sintex All-Cotton Tablecloth and Napkin Set.

Extra excitement is added with selection of wood sugar barrels to hold the "World's Greatest Buy in a Barrel." Making of dry barrels has become an almost lost art, but AC was able to enlist the services of one of the country's oldest and largest cooperages to fill the order. Retired coopers were called back into active service, dormant machinery was reactivated and a special kiln was found to cure the barrels. Early this summer the barrels began rolling into Flint. The wood from 3,000 trees was needed just to form the staves, and the AC order filled 125 railroad boxcars. If the barrels were stacked one atop another they would be 100 times as high as the Empire State Building and more than four times as high as Mount Everest.

See your Pure or AC Sales Representative for full details on how you can get this exciting offer.





Pure Oil jobber, Ballard Petroleum is 70 years young!

Remember when coal-oil and kerosene was hauled from door-to-door in a tank wagon such as this. In 1899, during Grover Cleveland's second term as President, an enterprising young business man, J. R. Ballard started an oil business in Louisville, Kentucky with this 200-gallon wagon and horse, Charley (purchased for \$25.00 from a local brewery), selling "coal oil" for lamps and stoves.

By 1901, when this photograph was taken, his son Chester

Ballard, can-in-hand, age six, had begun to lend assistance in the "family" business. Later, he became secretary-treasurer of the company and held this title until he sold his interest in 1958. James F. Parker became vice president and general manager of the corporation in 1958.

Today, Chester Ballard, 68, as auditor for the company his father began, Ballard Petroleum Corp., doubtless holds the record for length of service in the Kentucky Oil Industry.



WHAT SPARK PLUGS CAN TELL YOU ABOUT AN ENGINE

Under normal operating conditions, spark plugs wear out due to the destructive action, under intense heat, of sulphur and lead compounds in the fuel and the bombardment of the electric spark on the electrodes.

It is reasonable to expect 12,000 miles of useful life from a spark plug which has been cleaned and regapped at regular intervals. However, operating conditions are an important factor and life expectancy of the spark plug will vary with the type of service in which the engine is used.

The same type of spark plug used in two different engines of the same make and model may frequently show wide variation in appearance. The cause of such differences lies in the condition of the engine, its piston rings, carburetor setting, kind of fuel used, and under what conditions the engine is operated, namely, sustained high speeds or heavy loads; or continual low speed, stop-and-go driving or light loads.

Spark Plugs are frequently blamed for faulty engine operation which they do not cause. Replacement of old spark plugs by new may temporarily improve poor engine performance because of the lessened demand new plugs make on the ignition system. This cannot permanently cure poor engine performance caused by worn rings or cylinders, weak coil, worn contact points, faulty carburetion or other engine ills.

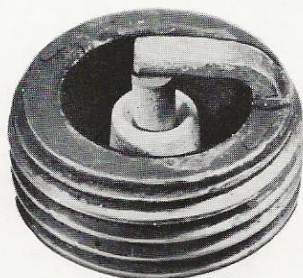
On these pages are pictures of some commonly encountered appearances and causes of spark plug problems. It is hoped that these pictures will make it possible for the trained, as well as the untrained, mechanic to make a correct diagnosis of many types of under-the-hood troubles by removing and examining used spark plugs.

Normal operation

Brown to grayish-tan deposits and slight electrode wear indicate correct spark plug heat range and mixed periods of high and low speed driving.

Spark plugs having this appearance may be cleaned, regapped and reinstalled.

When reinstalling spark plugs that have been cleaned and regapped, be sure to use a new engine seat gasket in each case.



Oil fouling

Wet, oily deposits with a minor degree of electrode wear may be caused by oil pumping past worn rings. "Break-in" of a new or recently overhauled engine before rings are fully seated may also result in this condition. Other possibilities of introduction of oil into the combustion chamber are a porous vacuum booster pump diaphragm or excessive valve stem guide clearances.

Usually, these spark plugs can be degreased, cleaned and reinstalled.

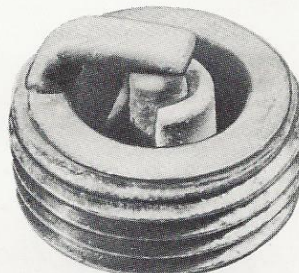
A hotter type spark plug will reduce oil deposits, but too hot a spark plug can cause preignition and, consequently, severe engine damage. An engine overhaul may be necessary in severe cases to obtain satisfactory service.



Heat shock failure

Heat shock is a common cause of broken and cracked insulator tips. Over-advanced ignition timing and low grade fuel are usually responsible for heat shock failures. Rapid increase in tip temperature under severe operating conditions causes the heat shock and fracture results.

Another common cause of chipped or broken insulator tips is carelessness in regapping by either bending the centerwire to adjust the gap, or allowing the gapping tool to exert pressure against the tip of the center electrode or insulator when bending the side electrode to adjust the gap. **Eliminate the cause and install a new plug of the recommended heat range.**



Improper installation

Dirty threads in an engine head will result in the plug seizing before it is actually seated. This results in poor heat transfer and causes the spark plug to overheat.

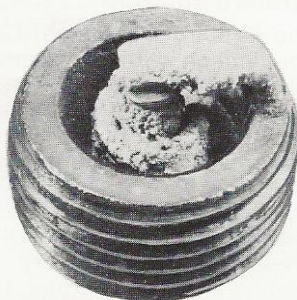
To insure proper seating of a new spark plug in the head, dirty cylinder head threads should be cleaned with a greased thread chaser of the proper size.

Eliminate the cause and install a new plug of the recommended heat range.



Deposit fouling—"A"

Red, brown, yellow and white colored coatings which accumulate on the insulator are by-products of combustion and come from the fuel and lubricating oil, both of which today generally contain additives. Most powdery deposits have no adverse effect on spark plug operation; however, they may cause intermittent missing under severe operating conditions, especially at high speeds and heavy load.



If the insulator is not too heavily coated, the spark plugs may be cleaned, regapped and reinstalled.

Sometimes, even after cleaning, an invisible shunt path remains. The only remedy under such circumstances is to replace the plug.

Detonation

Overadvanced ignition timing, or the use of low octane fuel will result in detonation commonly referred to as engine knock.

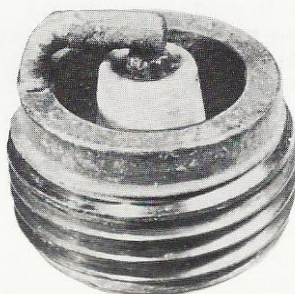
This causes severe shock inside the combustion chamber resulting in damage to the adjacent parts which include spark plugs. A common result of detonation is to have the sidewire of a spark plug torn off.

Install a new plug of the recommended heat range after problem has been corrected.



Deposit fouling—"B"

Most powdery deposits, as shown in "A", have no adverse effect on the operation of the spark plug as long as they remain in the powdery state. However, under certain conditions of operation, these deposits melt and form a shiny yellow glaze coating on the insulator which, when hot, acts as a good electrical conductor. This allows the current to follow the deposits instead of jumping the gap, thus shorting out the spark plug.



Glazed deposits can be avoided by not applying sudden load, such as wide open throttle acceleration, after sustained periods of low speed and idle operation. **It is almost impossible to effectively remove glazed deposits, so when they occur the plug should be replaced.**

Insufficient installation torque

Failure to install a spark plug with sufficient torque results in poor contact between the spark plug and the engine seat.

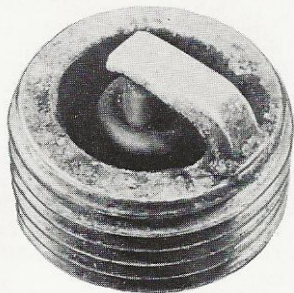
The lack of proper heat transfer, resulting from poor seat contact, causes excessive overheating of the spark plug and, in many cases, severe damage as shown.

A new spark plug of the recommended heat range should be installed in accordance with AC installation instructions.



Carbon fouling

Dry, fluffy black carbon deposits may result from overrich carburetion, excessive hand choking, a faulty automatic choke, or a sticking manifold heat valve. A clogged air cleaner can restrict air flow to the carburetor causing rich mixtures. Poor ignition output (faulty breaker points, weak coil or condenser, worn ignition cables) can reduce voltage and cause misfiring. Fouled spark plugs are the result—not the cause—of this problem. **After the cause has been eliminated, spark plugs having this appearance can be cleaned, regapped and reinstalled.**



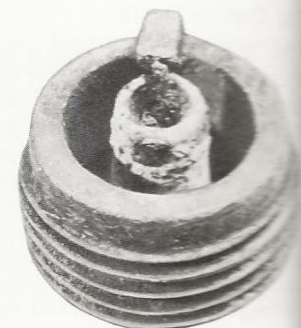
Excessive idling, slow speeds under light load also can keep spark plug temperatures so low that normal combustion deposits are not burned off. In such a case a hotter type spark plug will better resist carbon deposits.

Pre-ignition

Pre-ignition, causing burned or blistered insulator tip and badly eroded electrodes, indicates excessive overheating. Cooling system stoppages or sticking valves can also result in pre-ignition. Lean fuel-air mixtures are an additional cause.

Install a new plug of the recommended heat range after problem has been corrected.

Sustained high speed, heavy load service can produce high temperatures which will cause pre-ignition and, in this instance, a colder spark plug should be used.





Racing Round-up

Cale Yarbrough, running in what many class as his own backyard (Darlington Raceway), overcame a two-lap deficit and streaked to victory after a stirring duel with rival David Pearson to capture the 19th annual running of the Southern 500 stock car race.

Yarbrough, wheeling a 1968 Mercury Cyclone, came under the checkered flag only a car length ahead of Pearson's Ford Torino as a record crowd of 70,000 stood on their feet at ancient Darlington Raceway.

Yarbrough, who lives only 10 miles from Darlington in Timmonsville, South Carolina, became the first stock car driver to win four super speedway races in one season.

Yarbrough lost two laps at lap 37 when he elected to pit and switch from Goodyear to Firestone tires. Avoiding two major wrecks and surviving a brush with Pearson late in the race, the 28-year-old Mercury ace charged back to the front. By lap 200 he had moved into third place behind Pearson and fellow Torino driver Donnie Allison.

Then at lap 275, Yarborough pushed his Mercury, tended by the Wood brothers, in front for keeps. He averaged 126.132 miles per hour, collected \$25,415 for his work and increased his season's earnings to \$126,076, well within reach of the season's record of \$130,000 won by Plymouth's Richard Petty last year.

In victory circle, following the race, Cale gave credit to the Pure Oil Division, Union Oil Company of California as playing a major part in his win.

"On a day like this, the temperature reaching the 87 degree mark with the track temperature hitting 124 degrees, you must have a gasoline that will not vapor lock as well as give your car punch coming off the corners. This is the reason we use Pure Firebird Gasoline at the speedways," he said.

In addition to all the other honors that go with winning a prestige race such as the Southern 500, Cale also earned membership in the Pure-Darlington Record Club for his qualifying speed.

"This is another nut I was looking forward to cracking," Cale beamed.

Big Daddy Rolls

With a bit of help and a sharp eye that enabled him to get through the first round of eliminations, Big Daddy Don Garlits went on to win top fuel eliminator honors for the third time at the National Hot Rod Association National Championship drags at Raceway Park. The Seffner, Florida, driver's unprecedented third victory came in the closing moments of the \$150,000 five day meet when he defeated Steve Carbone of Downey, California, in the final round.

Garlits was clocked in 6.875 seconds and 226.70 miles per hour in his Dodge-powered 200-inch wheelbase dragster.

Chicago's Duke Ray had Garlits hopelessly beaten during an elimination run. However, Ray's machine developed mechanical problems in the final feet as Garlits stayed in and won. After his scare with Ray, no one in the field could touch the 1964 and 1967 National winner.

Firebird and Golf

The Firebird Invitational Golf Tournament, held each year in conjunction with the running of the famed Southern 500 at Darlington, South Carolina, has become of age, but in status only.

Extended to 54 holes this year, the tournament attracted the top amateurs throughout the southeast. A total of 12 new reporters were staffing the event this year.

Although old in status, the tournament for the past two years has fallen to the youth movement.

A year ago, 19-year-old Jay Horton of Wilmington, North Carolina, copped the title. This year, 18-year-old Jimmy Finklea of Florence, South Carolina won the title after beating 19-year-old Linwood Edwards of Darlington in a sudden death playoff. With temperatures soaring into the 100's throughout the event, and some pin rattling by the younger set, proved too much for the old guards of the links.

Finklea and Edwards finished regulation play deadlocked at 219, three over par for the three days of activity.

Both rang up par fours on the first playoff hole. Finklea ended the match on the 515-yard par 5 second hole. He split the fairway with his tee shot and hit a five iron over the green. However his chip stopped within two inches of the cup and he tapped it in for his birdie after Edwards had made five.

No trouble here pal

Chuck Parsons may have his problems at some race tracks, but not at Elkhart Lake, Wisconsin. In fact, the government may be after Parsons for starting a monopoly on the Road America 500.

Parsons, teamed with Skip Scott, copped the event for the third time in a row this year.

A crowd estimated at 41,270 watched Parsons nurse his ailing Lola-Chevrolet into the winner's circle in front of Ed Lowther's Ford.

Parsons not only had Firebird Gasoline in his fuel tank, but also was using Pure's HP Oil.

Jerry Hanson gave the Lola-Chevrolet team a clean sweep of the activity at Elkhart by winning the Badger 200 run the day before the American 500.

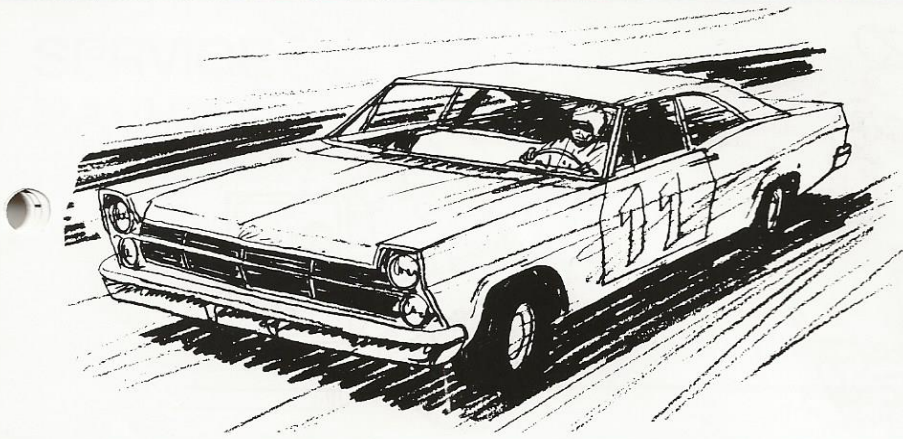
Here comes competition

American Motors got back into racing in 1968—and liked it. Now officials of the company have charted an even more robust racing route for 1969. This is good news for the sport. American Motors made a rather astounding comeback on the track in 1968, bringing back memories of the old Hudson Hornets which ran rampant in stock car competition nearly a generation ago.

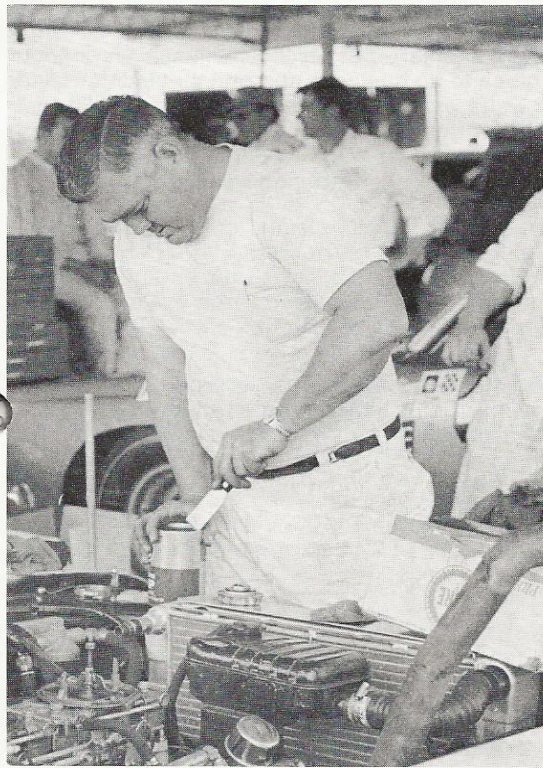
In trans-American sedan races this year, the two-car Javelin racing team has never failed to finish. Remarkable—even though they didn't win.

However, in many races Javelins sat boldly on the front row with fast qualifying times.

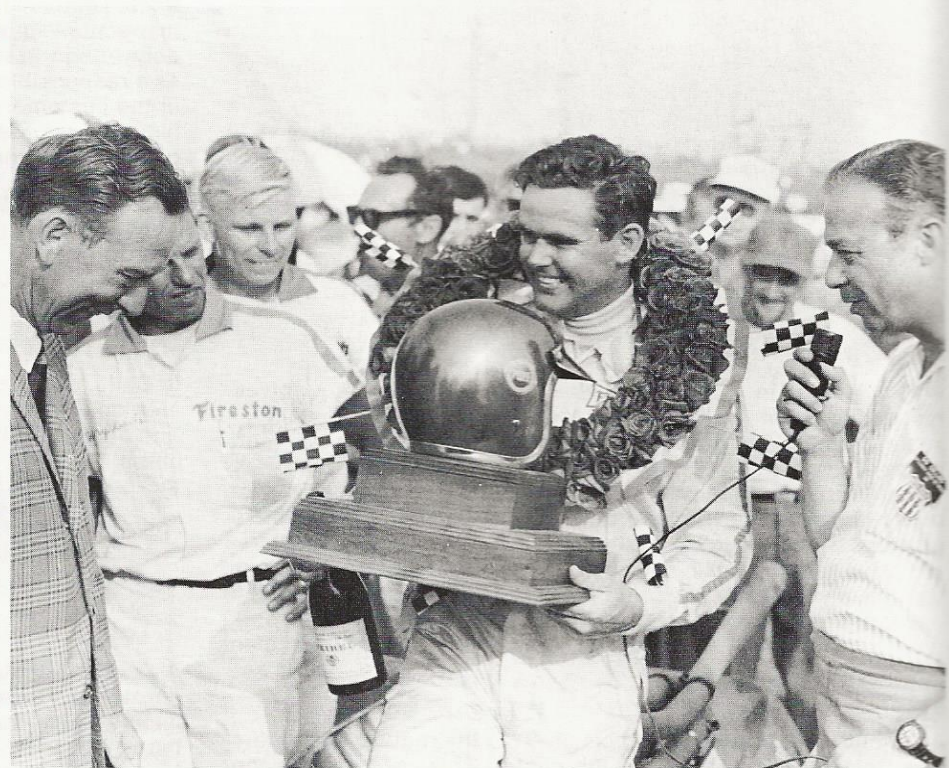
Just in what direction American will toss its money is something the public will have to wait and see.



GETTING THE JOB DONE—Junior Johnson opens a can of Pure HP oil with a putty knife which isn't the recommended way, but it gets the job done. Johnson's driver Lee Roy Yarbrough also got the job done with Pure Firebird gasoline and HP oil by winning the rich Dixie 500 at Atlanta International Raceway.



THE WINNER'S CIRCLE—Al Unser (center) clutches Pure Oil's "Golden Helmet" award which Unser received after winning the fourth annual Indianapolis 200 at Indianapolis Raceway Park. Track announced Sid Collins (right) talks on the microphone while Pure's Paul Wiley (left) admires the trophy he presented Unser. The trophy will be placed in the speedway museum.



LOUD AND CLEAR is this message on the back of charger Al Unser's stockcar. While other car owners go to fancy identifications, Rudy Hoerr hopes that tailgating racers will see and observe his "don't bend" sign.

Move over world

Better move over world, or at least make room, Al Unser is coming by.

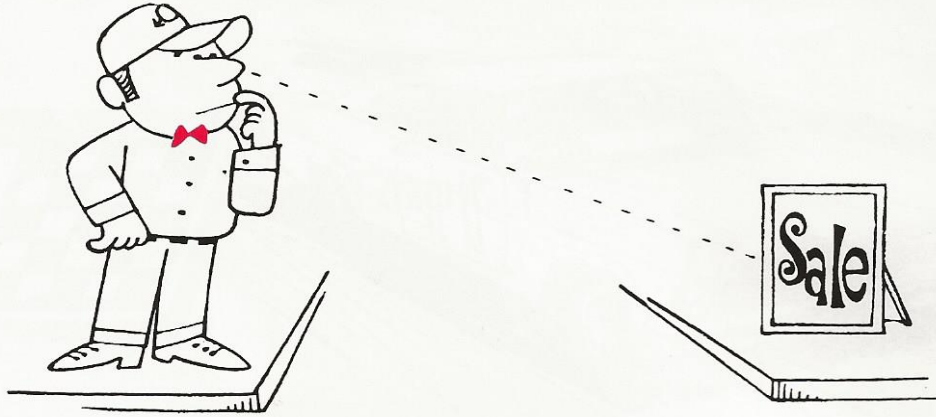
The most stubborn race driver in America, the youngest Albuquerque, New Mexico, member of the Unser motoring clan started a win streak he apparently wants to keep going.

He has won five consecutive championship trail victories with the latest being the Langhorne 200. In fact, he made the latter look so easy that the rest of the field was pounding their steering wheels in frustration.

If you think for a moment the Unsers aren't making the USAC season a family affair, well you had better examine the facts. Al and Bobby have accounted for nine of the 14 victories on the circuit.

Bobby is leading the point derby, but is looking nervously over his shoulder at the on-rushing kid who is showing no respect for his elders—Al.

WHAT'S YOUR COMPETITION DOING?



No matter how successful you may be as a Pure dealer, you will always find that somewhere, there is a competitive dealer who has an idea or a good gimmick that has paid off with increased business—and that's the whole purpose of this column—to let you know what is going on with other dealers. We think you'll find by adapting some of these ideas to your operations, your business will profit also.

It Pays to Advertise

A Gulf dealer in Chapel Hill, North Carolina, recently solved his employment problems by starting a comprehensive, full-scale training program for service station employees and prospective dealers at his station, backed up with full pay while training. He advertised the program in a local newspaper, attracting several top new men to his staff. Two of these employees have qualified themselves to become Gulf dealers.

Gulf Dealer News

A Courtesy Card

An exclusive "Courtesy Card" is given to the regular customers of a Colo. Conoco station by the dealer. This card entitles the holder to receive free tire changes, service to any dead batteries and diagnosis of stalled engines within a five-mile radius of the station. Each card is good for one year between the hours of 8 AM — 8 PM.

Conoco Today Dealer News

A Christmas Gift

One Gulf dealer finds that a little thoughtfulness at Christmas brings large dividends during the year. He greets all his customers during the Christmas season with a gift of household oil. Affixed to the can is a label reading, "Season's Greetings from Archway Gulf Service. Hank Thanks You."

Gulf Dealer News

Free Safety Inspection

Each year an Ill. Shell dealer holds a two-day "Free Safety Inspection" promotion. He believes that this free service not only brings in new customers but also establishes his station as a responsible place to do business and one that is interested in the customers' welfare. He has a twelve point check list that his men use. Each item on the list is inspected and placed in one of these three categories: "Go" . . . Item needs no work done; "Soon" . . . Item will need attention shortly; "Now" . . . Item needs attention now.

Super Service Station

Old Hydrometer Sells Chemicals

In Calif., a Chevron dealer has found that using an old hydrometer, one without a float, helps him sell more radiator chemicals. The dealer fills the hydrometer with water from the dirty radiator and shows it to the customer. The customer is usually sold on the need of radiator service without having to leave his car.

Chevron Dealer News

A Direct Telephone Line

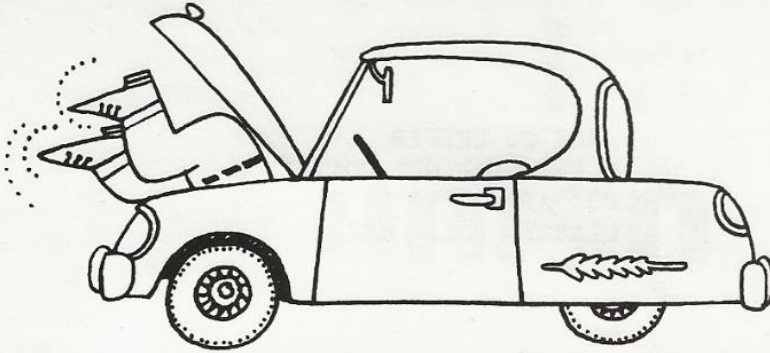
A Chevron dealer whose station is near a coin-operated laundrette has a real good setup that helps him build his service business. He has a direct, no charge, telephone line installed there. Laundrette customers are able to call his station for a free pickup and delivery service that lets the women get their cars serviced or washed at the same time they are doing their laundry.

Chevron Dealer News

One Quart of Flowers

Regular customers of an Okla. Conoco station that have to spend a few days in the hospital are cheered up in a very unusual way by their local dealer. The dealer takes an empty quart motor oil can to a local florist and has him fill it with a beautiful flower arrangement. He then sends the flowers and a get well card, signed by himself and all the men at the station, directly to the customer's hospital room.

Today Dealer News



Thermostat Housing Gasket Replacement, 1968 Cadillac Engine

Some 1968 *Cadillac* 472-cu. in. engines will be found to have two gaskets under the thermostat housing. When reinstalling the housing in such cases, be sure to install two gaskets again to insure against coolant leakage. If only one gasket is found, then replace only one.

Starting Difficulty—1968 Dodge and Plymouth

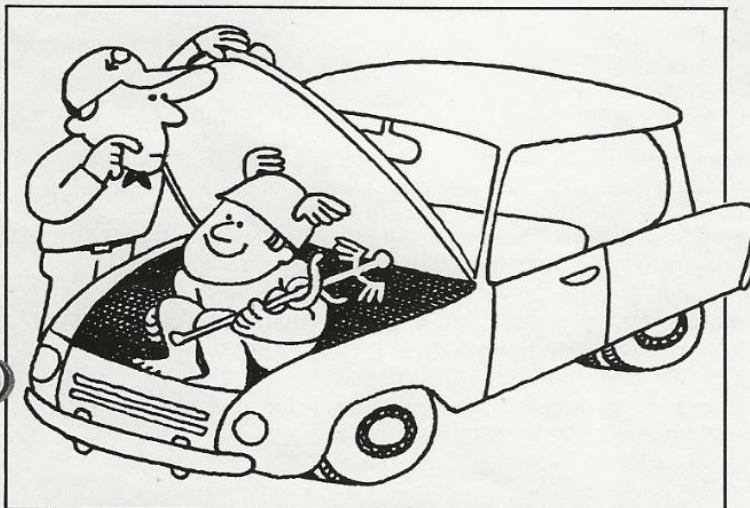
Difficulty encountered in starting 1968 *Dodge* and *Plymouth* models equipped with 273- and 318-cubic inch engines and BBD 1¼" carburetor, especially after partial engine cool down, may be caused by an incorrect choke setting. To correct, remove the choke unit from the intake manifold and readjust setting from the previously specified two notches rich to index (*center mark on the calibrated plate of choke*).

Poor Battery Clamp Connection

Complaints of poor engine cranking or no starter action at all, can often be traced to poor cable clamp connections. If found to exist, remove the cable and the clamp bolt. Holding the cable clamp in a vise, remove a small amount of metal from the two lips of the clamp. This will allow it to be compressed more and form a smaller diameter opening when reinstalled and tightened on the battery post.

Correcting High Idle Speed on 1968 Mercury Models

Higher than normal engine idle speed on 1968 *Mercury* engines may be caused by improper routing of the vacuum hose to the air cleaner interfering with the carburetor fast idle cam. Check by removing the air cleaner and rerouting the vacuum hose away from and underneath the carburetor fast idle cam mechanism.



Exhaust Backfire—1968 General Motors Trucks

GMC Trucks notes that some 1968 models with 230, 250, 292, 307, 327 and 396 engines equipped with A.I.R. exhaust emission control systems, may experience exhaust backfire during deceleration. This can be caused by an inoperative diverter valve which vents the air flow from the pump so that less oxygen is delivered to combine with the richer unburned fuel in the exhaust gases during deceleration. If the valve is stuck in the open position, the air is not diverted and the excessively rich combination results in exhaust backfire.

Replacing the diverter valve with a newly designed valve will quite possibly correct this condition. Following are part numbers of the new valve and their 1968 engine applications:

Valve Part No.	Engine Application
7036445-B	230, 250, 292 6-cylinder
703446-B	307 V-8
703448-B	396 V-8
703449-B	327 V-8

Revised Torque Specification for Chevrolet V-8 Engine Oil Filter

Chevrolet advises that specifications for tightening the oil filter on 1968 V-8 engines is changed from the previously specified "hand tight" to a torque of 25 foot-pounds. This is the equivalent of 1 to 1½ turns of the filter once it has been brought up snug. They also recommend that the oil filter adapter bolts be checked for a proper torque of 18 foot-pounds while the oil filter is off and the oil seal lubricated with engine oil before installing the filter.

Warranty Maintenance Service . . . More Important Than Ever

Look for some changes in new car warranties with the introduction of the 1969 models in September.

Although there has been no official announcement from car manufacturers, it is generally believed that a reduction in the effective coverage period of the present five-year or 50,000 miles warranty is being considered. This, of course, will not eliminate the requirements for warranty maintenance services. What is likely to happen is that new items of owner-responsible warranty services will be added and, quite possibly, the service intervals may be changed.

Thus, warranty maintenance service will continue as a profitable source of business for you. A tightening of warranties will place greater responsibility on car owners who will look to you for proper maintenance of their cars in order not to void the warranty through neglect or oversight.

The need for regular engine and chassis service on today's vehicles is greater than ever. High-speed driving and congested traffic (over 96 million vehicles are registered in the U.S.) calls for cars capable of delivering optimum performance. All car manufacturers stress the importance of proper car care for safety, comfort and economy.

Car Care will continue to be important and You will become increasingly important in the performance of it.

Dealer Progress

Published by PURE OIL DIVISION
Union Oil Company of California
200 East Golf Road • Palatine, Illinois 60067
Don P. McCauley, Editor

JACK C. LEPPER
% THE PURE OIL COMPANY
BOX 239,
LEMONT, ILL. 60439

BULK RATE
U. S. POSTAGE
PAID
Palatine, Illinois
Permit No. 29

TEST YOUR BATTERY WEEK

October 6-12



An estimated twenty-one million persons are on the road today with batteries that will not last out the winter, reports The Association of American Battery Manufacturers.

They pose the question: "Will your customers be among them?"

TEST YOUR BATTERY WEEK — October 6-12 — was originated three years ago, by the Association, to encourage motorists to have their battery checked before the cold weather. This can save the car owner inconvenience and aggravation.

If your customer's battery is weak, testing early will give you a chance to sell him a replacement. Many people, the Association observes, resist the idea of trading in a battery with

some useful life still in it, thinking they are economizing. According to AABM calculations, all that is saved by keeping a battery two months past its average life is \$1.78. Yet people will sometimes pay one or two towing bills — nearly the cost of a new battery — before realizing that it is time to trade.

Increasing numbers of the 300,000 dealers representing AABM members participate each year with merchandising materials and employee incentive plans. They find, simply, that when you test batteries, you sell them.

Plan now to benefit from this national promotional campaign. Ask your Pure salesman for details.