

der bayerische

VOL. 7 NO. 4

JUNE 1977

AUTOCROSS!

Rapid acceleration and expert handling are two things we don't get to practice very often these days, what with the clogged-up roads and 55-mph limit. If you have a yen to match your driving skills and your car's handling ability with those of other drivers, mark July 10 on your calendar and plan to attend the BMWCCA Cherished Date Autocross, one of the chapter's biggest activities of the year.

An autocross is a timed competitive event in which a driver negotiates a formal course laid out with pylons. Even if you've never autocrossed before you can do it, according to Chapter Autocross Chairman Bob Hoey, who will be on hand to lend pointers -- and helmets -- to novices.

Helmets? Does that mean it's dangerous? No, Bob says: "You get a chance to really drive your car hard, in the manner for which it was built, but in a safe environment." Since the runs are short, speeds in excess of 50 mph are rare. The helmets are required "because the rules say so," Bob said.

At press time, a location for the event had not been definitely determined, so anyone interested in participating -- or helping; at least 12 workers are needed -- should call Bob Hoey or Chapter President Ken Wright for an update on the location and exact time.

Not just BMWs, but all cars eligible under Autocross Association rules may be entered.

Cars should be in good technical shape; each car will be given a tech inspection before the event. Come without your hubcaps, with good tires which are inflated beyond normal driving pressure (check with Bob Hoey for exact psi) and with either an empty trunk or all trunk items tied down. You may remove your air cleaner, and you must wear your seat belt. Bring a helmet if you have one.

Spectators are welcome. The first heat will begin around 9:30 a.m. There will be no newsletter between now and July 10, so you must call a club officer for final details. Officers' numbers are on page 2.

bmw etiquette - part 6

Ditch Those Dangling Dice, You Own A Bimmer Now

This edition of our series is meant mainly to serve as a guide for those who wish to improve the appearance of their BMWs. It outlines taste for the beginner and tricks for the long-standing owner.

If you come from a Detroit background, you must understand that there are substantial differences between what may be done to American cars and what may be done to BMWs. For example, traction bars, Gabriel Hi-Jackers, drag-racing tires, manufacturers' logos on the back window, vinyl roofs and opera windows,

all of which are marks of style or speed on American cars, are never (repeat: never) done to BMWs. Nor are wolf whistles, suicide knobs, styrofoam dice or \$5.95-a-pair Pep Boys fog lights.

If you desire to enhance the appearance of your car, be prepared to spend money. You may lower the car, put on wider wheels and radial tires, add "Bavarian Motor Works" Boldertint to the windshield, add Maserati air horns (on-

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President's Message

Our preoccupation for the next month will be the BMWCCA Cherished Date Autocross, scheduled for July 10. Consider this a solicitation for help. We will require at least a dozen workers to make this event possible. If you can spend any time helping in any manner contact one of the officers as soon as possible. We will train anyone who wishes to help out. Your cooperation is essential to the success of this and future activities.

We propose, herewith, several activities for the coming months. By all means, call me and let me know if you are interested in participating in any of these or if you have additional suggestions:

1. A BMW-only autocross. Which of you hotshots thinks you can drive faster than your president? Or why not just come out and find out what it's like to drive flat out in a safe environment? We will have training in conjunction with the event, but we will only conduct the event if enough people are interested.
2. A BMW-only concours. Who has the cleanest and best-maintained car around here? Let's find out once and for all.
3. A BMWCCA Fall Tour. The Spring Tour was so well done and highly appreciated that we have to do this more often.
4. The BMWCCA Championship Rally. A perennial success.

Again, we need feedback on these ideas, so don't hesitate to call. Don't let that expensive machine of yours go to waste.

Ken Wright, president

Bimmer Etiquette

from page 1

ly if you cleverly conceal them), a leather racing steering wheel, Marchal or Cibie fog or driving lights, leather upholstery, sheepskin sitzpelts (never use terrycloth "one-size-fits-all" seatcovers), extra VDO gauges (be sure to hook them up), a Blaupunkt Berlin AM-FM-SW-Cassette radio (\$1,100 installed), and so forth. If you add fender flares, be sure you purchase the right size and offset wheels and tires -- nothing looks as declass  as huge flares and skinny tires. Under no circumstances should you add a hood scoop or lake pipes.

If spending less money and still leaving an impression appeal to you, you may consider simply adding window stickers. Never use any of the following: STP, Eldebrock, J.C. Whitney, STP, Moon, Hurst, STP, Genuine Ford Parts, STP, STP or STP. You may use BMW Motorsport, Miller and Norburn, Vasek Polak, Alpina, Weber, BBS-Mahle, Bilstein, Koni, Bosch, Cibie or Marchal. In self-defense, you should start your sticker collection with BMWCCA.

Bumper stickers are pretty much open territory; just don't use too many. To keep up your image, foreign-language or erudite stickers are helpful and more acceptable than Snoopy stickers. It might not be in your best interest to sport such slogans as, "I'm Driving Slow Because I Care" (especially as you cruise down the highway at 75) or "Buy American." A "Support Your Local Police" sticker might be helpful at awkward moments.

Dave Roach



der bayerische

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On Troubleshooting and Other Topics

Just because you have no desire to grind your own valves, bleed your own brakes or even change your own oil -- in short, just because you may be totally NON-technically-minded -- that doesn't mean you can't use this column. There is plenty of car-related information which can be useful to anyone who owns and operates a car and who wants to keep it in good operating condition.

Are you puzzled about whether that funny new noise can wait 'til your next 4,000-mile check-up or whether it demands immediate attention? Do you wonder if there's a way to treat your mechanic to ensure his fair treatment of you? Are you unsure about what questions to ask after your car has been serviced?

Any of those non-technical questions can be answered in this tech column, if you'll just figure out what you want to know and then ASK.

Beginning next month we hope to provide space in the tech column to answer questions from readers. If you're wondering about something, send in a question and chances are the answer will help you and other members, too. Either call Paul Broyles at 459-2081 or -- preferably -- write it down and mail it to P.O. Box 298, Seabrook, Md. 20801.

* * *

We knew we couldn't improve upon this feature on basic troubleshooting which appeared in the Puget Sound Chapter, BMWCA, newsletter, so we reprint it here in its entirety:

The best defense against trouble on the road is a well-maintained car. Get your attitude right. Don't get mad at it. In five years it won't make any difference what happens today, or tonight, and it probably isn't all that important right now. When you start hollering at a piece of steel, you've lost. Calm yourself, and then.....

Think in terms of how it works and what it should be doing that it isn't. Think in terms of systems, not a mass of obstinate steel. To say the car won't start says almost nothing. To say the engine does not crank over when you

turn the key narrows it down already, in this case to the starting circuit.

Check the obvious first, like the gas. Poke around under the hood a bit, looking for a loose wire or two or something leaking. Think about what happened just previous to the failure. Was there any noise or smoke? From where?

STARTER SYSTEM At least 90% of the time the problem(s) will involve the electrical parts of the car, especially the ignition system. Commence, however, with the starter system.



The engine should crank over strongly. If it doesn't, you have a problem with the battery, the starter solenoid, the starter itself, or the cables and connections in between these items. Bright headlights do not necessarily indicate a well-charged battery or good connections. Clean battery connections are essential.

Try jamming a screwdriver between the post and the clamp as a check for a dirty connection at the battery. Try using jumper cables from another car (positive to positive, negative to negative). If that doesn't work, push-start and go home to read up on starters and solenoids.

IGNITION SYSTEM If the engine cranks over normally and still doesn't start, the next place to look is the ignition system. Disconnect a spark plug lead and hold the metal connector about 1/4 inch from the engine. The spark should be strong, bright blue and jumping this gap easily. If it does, go on to the fuel system.

If not, pull the high-tension lead from the distributor to the spark coil and try the same thing. The spark emanates from the coil, so pull the wire from the distributor cap end. If there is no spark here, then the problem is a bad coil (rather unlikely, but possible) or else some fault in the low-voltage part of the ignition system (most likely). A 12-volt test lamp will be helpful here.

Next Meeting - 21st

The June meeting of the National Capital Chapter, BMWCCA will be held Tuesday, June 21 at 8 p.m. in the Diamond Head Restaurant.

Nelson Crozier, proprietor of Nelson Racing Specialties, will be on hand to talk about ignitions; and two speakers from SCCA will talk about communications and flagging during SCCA events. Chapter member Dean Merrell has also promised to bring a fleet of radio-controlled small cars (twelfth-size) which he'll exhibit.

The Diamond Head Restaurant is located at 6900 Wisconsin Ave., Chevy Chase.

Troubleshooting

from page 3

Put a piece of cardboard between the ignition points to hold them open and see if there is power at the end of the movable arm of the breaker unit. Do this with the ignition switch turned on. If there is power here, but no voltage spark, you either missed something in the high-voltage (secondary) circuit or the points are dirty or pitted and not making good contact when closed, or there is a fault in the condenser. Check for an adequate gap, proper opening and closure of the points. The base plate must be dry and clean.

If there is no power at the points with the ignition switch turned on, then you have either a short to ground or an open circuit somewhere between the battery and this point. That is, bad insulation or a loose or broken connection.

First check for an internal ground in the condenser. Remove the condenser and hold it in such a way that the body of it does not touch anything and check again for current at the points. If you now have current (power), the condenser was grounding internally and must be replaced. If not, continue checking back throughout the circuit, both visually and with your test lamp, for faults. You will generally find power by the time you get to the switch side of the coil. If you, you have either a bad switch or a bad ballast resistor, both rare but possible faults.

Remember that cleanliness is of the essence. There should not be even traces of oil, dirt, corrosion or dampness on any of the wires or connections in either the low- or high-voltage circuits of the ignition system. Or any other, for that matter. Many ignition problems are multi-determined. You lose a little bit here and a little bit there until it won't run any more.

FUEL SYSTEM Remove the air cleaner and peer down into the mouth of the carburetor. It won't eat you. Actuate the throttle (gas pedal) and watch to see if the accelerator pump shoots a stream of gas into the hole. If it does, the fuel system is probably fine. It may be flooded (that is, too much gas). In that case, wait 10 or 15 minutes and, holding the gas pedal all the way down -- don't pump it -- try to start the engine. Holding the pedal all the way down allows the maximum amount of air possible to enter the engine.

Once in a great while the air cleaner will get dirty enough to choke off an engine.

If you don't see a stream of gas when you pump the gas linkage, then (assuming there is gas in the tank) you have either a bad fuel pump or something clogging the lines. The fuel pump should deliver a good healthy spurt of fuel. Holding a can underneath to catch it won't hurt, and you may as well be optimistic about it. If you have fuel entering the carburetor but not coming out and entering the engine, then it is obviously clogged inside. See how logical this all is?

see page 5

Mid-Ohio Racing Report: Death To the Infidels!


After a disappointing mechanical failure at the IMSA Camel GT race at Lime Rock, the Citicorp McLaren BMW 320 Turbo handily won the Camel GT 100-mile event at Mid-Ohio two weeks ago. David Hobbs shattered the existing qualifying lap record (set last year by Peter Gregg in a CSL) by nearly two seconds. In the main event, the only unlaughable competition was given by media-darling Danny Ongais' Interscope Porsche 934. The turbo-Porsche edged out the turbo-BMW into the first turn and Hobbs pursued Ongais by one or two car lengths for several laps, obviously content to let the evil-looking 934 set the pace for the rest of the field.



Then, the inevitable failure of the Porsche's rear suspension caused Ongais to drop out of the race and Hobbs found himself with a useful 20-second lead over the Monza of Al Holbert. For the next several dozen laps, Hobbs stretched the lead to more than 40 seconds before the BMW began to show fatigue. At the end, Hobbs' lead had dwindled to a mere three seconds; but the McLaren engineers had clearly gambled intelligently, for the little four-cylinder bomb lasted just long enough to win convincingly. Hobbs put on a masterful show of driving skill, running very sophisticated and consistent laps.

The results of the RS sedan race were on the disappointing side, however. Miller and Norburn fielded three cars, one an aging 2002ti driven by G.H. Sharp, and two 320i's driven by Nick Craw and John Morton. In practice and qualifying the 2002 was far quicker than the 320i's. In fact, Sharp showed some promise in the race itself, running among the leaders until he was put out by a shunt. Craw and Morton showed their skill and experience by running consistent laps and moving up to 2nd and 4th, respectively, at the finish. In retrospect, the Miller and Norburn team can take pride in their results with a relatively new chassis with not many miles behind it for development. Morton's drive was especially commendable, for he moved up through a lot of traffic to finish in the points, after a broken rocker arm qualified him well back in the starting grid.

Ken Wright



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Synthetic Engine Oils Explained, Compared

What is the difference between a synthetic oil and a non-synthetic oil? Well, it's simple. One is synthetic; the other isn't! Actually, there's more to it than that. Conventional oil, known as mineral oil, is refined from crude oil. Synthetic oil is chemically rearranged molecules which are from a basic mate-

by bruce cranford

rial. This basic material can be mineral oil, fats or alcohol, to name a few. After the alchemist performs his wizardry and manufactures the synthetic oil, chemical additives are used to give synthetic oil the desired qualities.

Don't get the mistaken idea that synthetic oil is a new product; it isn't. Synthetic oil research began before World War II to try to discover the best properties of oil. During

World War II, Germany continued this research because of Allied-imposed oil shortages and a lot of cold-weather operations. After World War II, the aircraft turbine industry spurred the formulation of more synthetic oils.

Just like they always say, "History repeats itself." Synthetic oil research was taken up again with a passion in the early 1970's because of the OPEC oil embargo and the Alaskan pipeline (get it -- cold weather operations). Conventional motor oils would not operate effectively in the arctic environment so synthetic oils were developed to meet the needs of those working in extreme cold. Finally, the hotter-running and more expensive engines of today have provided the proper environment for development of the synthetic oils we now have available.

In my attempt to evaluate synthetic oil, I have collected and read the results of tests on the various types of synthetic oils. Re-

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Finding the Problem When Your Car Breaks Down

from page 4

If there is no fuel coming to the carburetor, disconnect the incoming (from the tank) line to the fuel pump and blow into it. Have someone listen at the tank and, if they hear a gurgling sound, that line is clear and the fuel pump is at fault. Most times fuel pumps just have to be replaced, although some foreign models can be rebuilt. Of course, exterior leaking from the fuel pump indicates it needs to be replaced or rebuilt.

It still won't run? It's time to check compression. And, remember, it takes four things to make it go: 1) a gas-air mixture, 2) good compression, 3) a spark, and 4) correct timing of that spark.

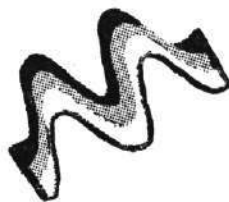
OVERHEATING An engine that has been running normally will overheat for three basic rea-

sons. It has 1) run out of water in the cooling system, 2) the water is circulating too slowly or not at all, or 3) the water is not being cooled. Lack of water can be caused by leaks or overfilling. Failure to circulate could be a bad water pump, a faulty thermostat or a thermostat with too high an opening temperature, or the radiator or the cooling passages in the engine itself might be clogged. Check to see that air is passing freely through the radiator. Cooling systems are pressurized and are designed to operate at temperatures above the normal boiling point of water. Check the rubber seal on the pressure cap.

Finally, it is also possible that you may be asking too much of your engine. A hot day, with a full load and perhaps some high altitude thrown in, may be just too much. You'll

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Synthetic Oil Explained - Part Three in a Series

from page 5

ports came from the Society of Automotive Engineers (SAE), the National Petroleum Refiners Association, Popular Science magazine, synthetic oil manufacturers, technical and trade journals, and automobile manufacturers.

One very disturbing fact became apparent when the test data from the "unbiased" organizations were reviewed. Even though the tests were rigorous and established American and European standards, when synthetic and conven-

tional oils were compared side by side, nowhere were the brands of oil mentioned! Consumer's Reports and Road and Track, they aren't!

Even though a synthetic oil may be from the same basic material as a commercially available brand, the addition of different chemical additives can produce different results. Basically, no two brands of synthetic oil are exactly alike. The chemical formulation of

see page 8

TABLE 3-1 SYNTHETIC ENGINE OILS
TECHNICAL DATA AND CLAIMS

MFG.	mineral oil	CONCO	MOBIL	ULTRA-CHEM	ULTRA-CHEM	UNIVERSAL	AMZOIL	EMERY	ENOCA	EON
NAME	typical	DN-600	I	racing oil	engine lubricant	SL-1		Fridig Go	All-Proof	EON-11
SAE RATING	10W-40	20W-30 ^A	5W-20	30	10W-40	10W-40				10W-40
API RATING	SE		SE		SE	SE				SE
VISCOSITY SUS @100°F	400 ^A	275	207	380	400	400 ^A				415
210°F	70-85 ^A	61	51	65	78.5	70-85 ^A				77.5
POUR POINT °F	-20	-55	-65	-40	-60	-50				-60
FLASH POINT °F	350	410	455	535	455-475	440				450
DRAIN INTERVAL	Auto Mfg				25,000	Annual ^B	25,000			25,000/annually
FILTER CHANGE	Auto Mfg				25,000 mi.	10,000 ^B mi.				12,000/annually
OIL TYPE	Mineral Oil	Alkylated Benzens	Poly-alpha olefins & Diester	Polyol ester	Diester		Diester	Diester	Polyol ester	Diester
MFG CLAIMS	21,22	1,2,3,23	1,2,4,5,7,8,9,10,13	2,5,7,10,12,13,14,15,16	2,3,5,7,8,9,11,12,13,25,26,27	1,2,3,5,6,7,9,10,12,13,16,18,23,24,29		10	13,16	1,2,8,9,10,13,15,16,18,19,20

A Estimate

B To maintain car mfg. warranty, change at car mfg recommended intervals

CLAIMS:

- Exceeds car manufacturers' warranty requirements
- Faster or easier starts in cold weather
- Compatible with ordinary motor oils
- Improved engine lubrication
- Reduced friction
- Quiets noise lifters
- Forms fewer engine deposits
- Increases engine life
- Reduces oil consumption in engines in good mechanical condition
- Reduces wear
- Keeps engines absolutely clean
- Engine runs cooler
- Increases gasoline mileage
- Oil pressure remains constant

- Allows engine to develop higher RPM
- Increases horsepower
- Increases spark plug life
- Lowers harmful emissions
- Engine runs smoother
- Longer time between tune-ups
- More cost-effective
- No advantage over synthetic oil
- Expanded temperature range
- Biodegradable!
- Film strength exceeds any mineral oil
- Will not form combustion chamber and spark plug fouling deposits
- Adheres to metal
- Compatible with fuels
- Warrants engine against product failure; will repair or replace engine

eventscalendareventscalendareventscalendar

June

- 18-19 Go-Kart races, Summit Point, West Virginia; for info, Robert Dorne, (703) 590-1355
- 19 Southeast Sports Car Association (SESCA) "Pylon Python Championship Autocross," Cameron Station, 5 hours, 1st car off 9:30 a.m., call Carolyn Aldrich at (703) 250-9475 (evenings)
- 21 BMW Club meeting, 8 p.m., Diamond Head Restaurant, 6900 Wisconsin Ave., Chevy Chase, Md.

25-26 SCCA National races, Summit Point, West Virginia, call Ticketron for ticket information

26 CCB Baltimore championship autocross

July

- 3 VMC Baltimore championship autocross
- 3 French Grand Prix, Dijon
- 3-4 Paul Revere 200 IMSA RS & GT races, Daytona Raceway.
- 4 Annapolis Junction Sports and Tour Club open autocross
- 9-10 World Championship of Makes, Watkins Glen, N.Y.
- 10 BMW Club Cherished Date Autocross, WE NEED WORKERS, for info call Bob Hoey, (301) 948-8368.
- 10 VMC championship rally
- 15 Branded Club Friday night rally
- 16 British Grand Prix, Silverstone
- 17 Autocross Association championship autocross

Spring Tour A Splendid Success

Sunny weather greeted the two dozen true believers who came out for the BMWCCA Spring Tour last month. The cleverly-designed tour route developed by Bob Hoey, Bill Riblett and Paul Broyles provided memorable hours of scenic driving through the hills and woods of upper Maryland and historic Gettysburg, Pa. Key points of interest included the antique shops of New Market and the Gettysburg battleground area. After the drive, participants settled down to a fine meal and socializing at the Comus Inn. Naturally, a splendid time was had by all. Many thanks to the organizers, Bill (Cheshire Cat) Riblett (the Tourmeister) and Backdoor Man Fred (Dr. Strangelove) Weinberg.

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Synthetic Engine Oils Explained, Compared

from page 6

the basic material may be known, but the additives are usually a closely-guarded secret. It doesn't benefit the consumer -- you and me -- very much when a report indicates synthetic oil #1 causes greater cam wear than conventional oil #3, but synthetic oil #5 reduces wear 11 percent over conventional oil #3. Where can I buy synthetic oil #5? If I buy a synthetic oil, how do I know I am getting synthetic oil #5 and not #1? I don't!

Currently, four types of synthetic automotive lubricants (base stocks) are available to the public. They are Dibasic Acid Ester (Diesel), Polyalphaolefins, Polyol Ester and Alkylated Benzens. By definition, they are all synthesized hydrocarbons. Some of the commercially available synthetic oils are combinations of the various base stocks. A comparison of the various base stocks can be made, but by the time the additives are combined with the base stock to improve its performance and after other synthetic oils may be added, the original base synthetic oil has changed properties! The picture now becomes oily!

In general, the following can be said about synthetic engine oils: based on SAE and National Petroleum Refiners Association reports, some synthetic oils are as good as mineral oils, some are better and some are worse, depending on the formulation! Based on the majority of commercial magazine articles reviewed, I found most evaluators believe syn-

thetic oils are better than conventional oils; however, no comparison could be found among the various types of commercially available synthetic oils by brand name. Some claim synthetic oils are cheaper over the long run. Others claim synthetics are more expensive, depending on the assumptions made in the evaluation.

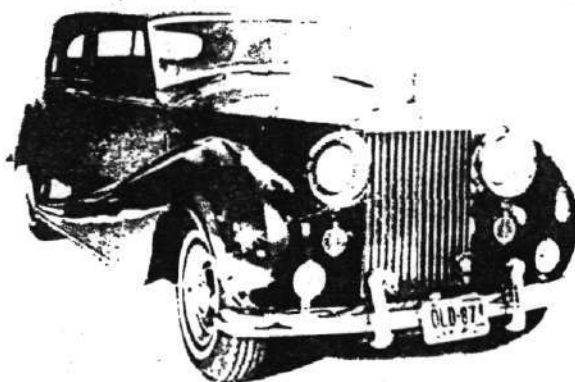
BMW of North America and BMW AG Munchen both were contacted. BMW of North America sent some articles which have appeared in other BMW club papers. BMW AG Munchen sent a letter stating, "...the only country we recommend this is in Germany where we have very thoroughly tested those oils recommended to us. Unfortunately, the oils produced in America differ somewhat to those produced in Europe." They went on to say, "We will therefore not be in a position to give any recommendations for the American Market until some time in the spring of 1977." Spring has sprung, but BMW still hasn't published the report.

Reports appear in the various BMWCCA papers from synthetic oil users. More than one has indicated increased oil consumption with Mobil 1. Mobil 1 is a 5W-20 weight oil. It could indicate the oil is a bit too thin for BMWs. If anyone has experience with synthetic oils and would like to contribute their experiences, please state the name of the brand used. It doesn't help to say you have had good or bad experiences with synthetic oil

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Troubleshooting: When Your Car Breaks Down

from page 5

have to stop periodically and wait for it to cool off.

This is not intended to be a complete shop manual on troubleshooting. It should, however, help you with some of the most common causes of breakdowns. As I write, a couple of things occur to me. One is the enormity of the task of trying to cover all the possible troubles of an automobile. Two is the fact that if the car is properly maintained, none of the common failures will occur in the first place. So in a very real sense this is all redundant. As do all other guides to trouble-

shooting, this one presumes a certain basic understanding of how things are supposed to work.

* * *

CORRECTION: In last month's tech column a rather crucial word was omitted from a list of reasons why a car overheats. Reason "H" should have read "Poor cooling fan action," NOT "Poor cooling action." Symptoms of an ineffective cooling fan include immediate overheating with clanking and rattling noises; and immediate overheating with smoking and lack of power. For those of you who read last month's column and were a little puzzled, sorry. -- ed



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Synthetic Oils Evaluated, Compared in Series

from page 8

when there are so many currently on the market.

Information the synthetic oil manufacturers publish indicates their oil is better -- in fact, much better -- than conventional oils; but then, what manufacturer will tell you his product is only as good as the competition's yet costs four times as much?!

Amoco provides information which indicates their top-quality mineral oil is as good as synthetic oil, but does not say which synthetic they used in the comparison.

As this point you may be asking yourself, what do I mean by better? Well, that's not easy to say. In general, better, when used to grade oil, means producing less friction and wear than conventional oil. This means more power or improved gas mileage. Better means longer drain intervals. Better means easier cold-weather starting and improved engine protection.

Table 3-1 summarizes the technical data obtained on commercially available brands. The left-hand side of the table gives the various physical properties of the oils. Last month's article explains most of the terms; however, I left out one term in the previous article. "Flash point" is the temperature of the oil that will drive off sufficient vapor that can be ignited by a spark or flame. The claims

made by each manufacturer are documented by the "advertising literature." In other words, they are in writing from the manufacturer. The blank areas indicate the information was not made available to me. (It would be appreciated if anyone out there could fill in the blank spots with documented information.) Across the top of the table are the various brands available. This is by no means a comprehensive list of synthetic oils. A typical mineral oil is shown for comparison only.

Table 3-2 lists some of the local distributors of synthetic oils and the people to contact for additional technical information on their particular brand.

Which synthetic oil is better? I don't know! There is not enough comparative test data of the various brand-name synthetic oils to say which is better. I can say that information is available to indicate a well-formulated synthetic oil is better than a well-formulated mineral oil, but the synthetic oil costs more than the mineral oil. Is it worth the price? Only you can decide! As research and testing continues in this area, greater improvements over current lubricating fluids can be expected.

In the next article, I will discuss my personal and intimate experiences with two types of synthetic oils and provide test data that may be of some help.

Bruce Cranford

TABLE 3-2
Local Distributors of Synthetic Oil

1. CONCO Polar Start DN-600 Fluid:
Manufacturer: Continental Oil Company
Distributor: West Mountain Sales, Inc.
RFD, 2 Corinth Road
Glen Falls, New York 12801
For additional information contact:
Mr. A.P. McCloud
Staff Engineer
CONCO
P.O. Box 2197
Houston, Texas 77001
2. MOBIL 1:
Manufacturer: Mobil Oil Corp.
Distributor: Local Mobil service stations
For additional information contact:
Mr. R.R. McCoy
Mobil Oil Corporation
150 East 42nd St.
New York, N.Y. 10017
3. Chemlube 30WT Synthetic Racing Oil and
Chemlube 10W-40 Synthetic Automotive Engine Lubricant:
Manufacturer: Ultrachem, Inc.
Distributors: Quicksilver Racengines, Inc.
Jim Kerrigan
1101 Gude Drive
Rockville, Md. 20850
(301)340-2700

P.H. Morgan
6219 Zekan Lane

- Springfield, Va. 22150
(703)971-3449
For additional information contact:
Mr. F.J. Magnella
Ultrachem, Inc.
1400 North Walnut St.
Wilmington, Delaware 19899
(302)571-8520
4. SL-1:
Manufacturer: Universal Lubricants, Inc.
Distributors: Lamb Specialty Cars, Inc.
13580 Virginia Manor Road
Laurel, Md.
(301)953-2626

Universal Imports
866 Rockville Pike
Rockville, Md. 20850
(301)424-1200
For additional information contact:
Mr. K.K. Mix
V.P., Director of Marketing
#2 Royalston Ave. North
Minneapolis, Minn. 55405
(very helpful)
 5. EON E-11 Synthetic Motor Oil:
Manufacturer: EON, Inc.
For additional information contact:
Marcia A. McCaslin
Marketing Services Manager
EON, Inc.
North Central Building
Suite 350
1440 North Loop
Houston, Texas 77009



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PARTIAL LISTING OF INDIVIDUAL ITEMS:

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AIR HORNS (SPEC ORDER)
AXLE BOOTS
AXLE SHAFTS
BALL JOINTS
BEARINGS
BATTERIES
BRAKE DISCS
BRAKE CABLES
BRAKE HOSE
BRAKE HYD. KITS
BRAKE HYD. CYL.
BRAKE FLUID
BRAKE SHOES (EXCH)
BRUSHES (GEN & STARTER)
BULBS
CABLES
CLASSIC PRODUCTS
CARBURETORS & KITS
CARPET KITS
CHROME AIR FILTERS
CLEAR FUEL LINE
CLUTCHES (NEW & EXCH)
DRAG LINKS
DRIVING LIGHTS
ELECTRIC FUEL PUMPS
ENGINE BEARINGS
ENGINE MOUNTS
EXHAUST PIPES
FAN BELTS
FLEXIBLE DRIVE JOINTS

FLEXIBLE FUEL LINES
FLOOR MATS
FLYWHEEL RING GEARS
FRONT SUSP. KITS
FUEL PUMPS & KITS
FUSES
GASKETS
GEARSHIFT KNOBS
GEARSHIFT BOOTS
GENERATORS (NEW & REBUILT)
GREASE FITTINGS
GRILLE GUARDS
HEADLAMP UNITS
HEATER HOSE
IGNITION COMPONENTS
KINGPIN SETS
KNOBS, CHROME & WOOD
KNOBS, VINYL
LUGGAGE RACKS
MASTER CYLINDERS
MIRRORS
MUFFLERS
NUTS & BOLTS
OIL FILTERS
OIL SEALS
PATCHES
PIN BUSHINGS
PISTONS
RADIATOR CAPS
RADIATOR HOSE
REGULATORS (VOLTAGE)
REUPHOLSTERY KITS

RINGS
SHOCK ABSORBERS
SKI RACKS
SPARK PLUGS
SPOKES & NIPPLES
STARTERS (NEW & REBUILT)
STEBRO MUFFLERS
STEERING DAMPERS
STEERING JOINTS
SUN VISORS
TAILPIPES
THERMOSTATS
TIE ROD ENDS
TIMING CHAINS
TIMING GEARS
TONNEAU COVERS
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VALVE GUIDES
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