

MINUTES OF THE SENATE COMMITTEE ON TRANSPORTATION AND UTILITIES

The meeting was called to order by Sen. Bill Morris at
Chairperson

9:00 a.m. ~~xxx~~ on February 7, 1985 in room 254-E of the Capitol.

All members were present except:

Sen. Phil Martin was excused.

Committee staff present:

Hank Avila, Research Department
Fred Carman, Revisor
Louise Cunningham, Secretary

Conferees appearing before the committee:

Mike Brubacher, Marketing Manager, Wenger Oil Co., Newton
Steve Hatchett, General Manager, Scholfield Brothers, Wichita
Joe Futhey, Master Mechanic, Scholfield Brothers, Wichita
Jim Sullins, Kansas Motor Car Dealers Association
Gary Williamson, Topeka, Mechanic, Bill Kobach Buick
Chuck Brodie, Mechanic, Air Capital Standard, Wichita
Rebecca Crenshaw, Committee of Kansas Farm Organizations
Harry Wullschleger, Kansas Corn Growers

On a motion from Sen. Norvell and a second from Sen. Hayden the Minutes of February 6, 1985 were approved. Motion carried.

HEARING ON S.B. 30 - Phase-out of gasohol subsidy.

PROPOSERS

Mike Brubacher, Newton, said he had written a letter to his state representative, Rep. Tom Walker, which was later published in a publication called the "Marketer". As a result he was invited to appear before the Committee. He said he felt there were serious problems related to alcohol blended motor fuels and alcohol subsidies have created a problem for responsible fuel marketers. With the subsidies a minority of fuel marketers are taking advantage of a bonanza provided by the taxpayer and an alcohol blended product is more profitable to sell. The product is causing trouble in fouling up lines, filters, and carburetors. He said taxpayers were subsidizing 60% of the selling price of the product and it was not a responsible investment of taxpayers' money. Consumers are also paying in towing charges and repair bills.

Steve Hatchett, General Manager, Scholfield Brothers Pontiac, said they have had numerous complaints that were connected directly to the purchase of gasohol. Scholfield Brothers are not against subsidizing Kansas farmers and are in favor of anything that will help them, but gasohol could be a disservice to consumers.

Joe Futhey, Master Mechanic, Scholfield Brothers Pontiac, said alcohol is a cleaning agent. It is used to clean out storage tanks, pipelines and it will clean out a gas tank. It will clean to a point where a fuel filter will plug up and the car will not run. The dirt ends up in the carburetor and then the repair is of a technical nature. The only way to fix it is to overhaul the carburetor. When the carburetor is taken apart the dirt appears as mud and this clogs up tiny passages. The manufacturer does not take care of this repair and the usual cost is approximately \$175. He said there was a large profit in the manufacture of methanol and the use of methanol would destroy the fuel system and rubber parts faster than ethanol. There should be strict regulation on the use of methanol type fuels. A consumer doesn't really know what he is getting at the fuel pump. It is not required to be posted. GM has redesigned some of their gaskets, rubber parts and O-rings so they are not affected by the use of alcohol. GM would not have spent that amount of money to redesign if there had not been a problem. He said the mechanics had no

CONTINUATION SHEET

MINUTES OF THE SENATE COMMITTEE ON TRANSPORTATION AND UTILITIES,
room 254-E Statehouse, at 9:00 a.m./~~p.m.~~ on February 7, 1985.

way of telling whether the product used was methanol or ethanol.

Jim Sullins, Motor Car Dealers Association, said they were neither an opponent nor proponent for S.B. 30 but said they had received a request from Congressman Dan Glickman this past summer concerning the effect of blended fuels on fuel systems and engine components in motor vehicles. He said there was a problem in the Topeka area and all dealerships had received complaints about blended fuels. He said the GM Manual cautions against using methanol under any circumstances and problems resulting from the use of such fuels are not the responsibility of the manufacturer. He said, however, they made a clear distinction between ethanol and methanol blends. A copy of his statement and a copy of Section 4 from the Chevrolet Owners Manual is attached. (Attachment 1).

Gary Williamson, Bill Kobach Buick, said the problems they experienced were basically the same as described by Joe Futhey. They also have no way of telling the difference between ethanol and methanol fuels.

OPPONENTS

Charles Brodie, Wichita, said he was here on his own behalf. He is a mechanic and had been on a call-in TV show in the Wichita area where people called in about their mechanical problems with automobile engines. He said he had made a very thorough investigation and had written an article for the Wichita Journal on the subject 6 months ago. He had visited mechanics' training schools from coast to coast and dealerships throughout the nation. These were his listening posts. There were no significant problems with ethanol but there had been problems with methanol. A copy of his statement is attached. (Attachment 2).

Rebecca Crenshaw, Committee of Kansas Farm Organizations, spoke in oppositon to S.B. 30 and the importance of having a market for agricultural products. A copy of her statement is attached. (Attachment 3).

Harry Wullschleger, urged the Committee to support H.B. 2022 and oppose S.B. 30.

Meeting was adjourned at 10:00 a.m.

SENATE TRANSPORTATION & UTILITIES COMMITTEE

Date 2-7-85 Place 254-E Time 9:00

GUEST LIST

PLEASE PRINT

<u>NAME</u>	<u>ADDRESS (City)</u>	<u>ORGANIZATION</u>
Martha Carithon	Ks Depart of Revenue	Planning & Research
Steve Hatchett	Wichita (7633 E Kellogg)	Scholfield Bros
Joe FUTHey	7633 E Kellogg WICHITA	SCHOLFIELD BROS
Tom Regan	Topeka	KEA
CHARLES BRODUS	WICHITA	AIR CAPITAL STANDARDS
Scott Faust	Wichita	Eagle-Beach
Dan Rambow	Topeka	Ks. Contractors Assn.
Ray GRANT	"	RCCI
C H Rantz	Austin	Tenaco
JIM SULLINS	TOPEKA	Ks Motor Car Dealers Assn
GARY L. WILLIAMSON	TOPEKA	BILL HOBMACH. BUICK-GMC-ISUZU INC
M. Hauer	"	cap-Journal
Rebecca Conshaw	"	Committee of Farm Orgs.
H. D. Wallbridge	RT 1 BOX 95B HOMER, KS	Kansas Corn Growers
Raul T. Silveira	Topeka	KDO 1
Tom Whitaker	Topeka	Ks Motor Car Dealers Assn
Chip Wheeler	Topeka	Legis. Policy Group
Kyle P. Stegmay	Marion	Dir. of Budget
Shirley Ray	Olathe	Jo Co Board of Comm.
Jacquie Whittrid		Senator Walker office
Charles Nicolay	KOMA	Topeka
Bob Poellney	UPI Topeka	
CHARLES BELT	WICHITA	WICHITA AREA C of C

SENATE TRANSPORTATION & UTILITIES COMMITTEE

Date _____ Place _____ Time _____

GUEST LIST

PLEASE PRINT

NAME

ADDRESS (City)

ORGANIZATION

George Barber

Topeka

Ks. Consulting Engrs.

(7)

Statement before the
SENATE COMMITTEE ON TRANSPORTATION & UTILITIES

by the
KANSAS MOTOR CAR DEALERS ASSOCIATION

on

Senate Bill 30

Thursday, February 7, 1985

Mr. Chairman and Members of the Committee. I am Jim Sullins, Executive Vice President of the Kansas Motor Car Dealers Association, and I come before you today at the request of Chairman Morris. At the outset, I would like to say that the Kansas Motor Car Dealers Association does not have a policy position concerning Senate Bill #30, and is neither a proponent or opponent.

Senator Morris requested that we address the Committee concerning the effect of blended fuels containing a combination of gasoline and either ethanol or methanol on fuel systems and engine components of gasoline engines in motor vehicles.

This past summer, the Kansas Motor Car Dealers Association received a similar request from Congressman Dan Glickman which was prompted by a story in the Wichita Eagle-Beacon. At that time, the Congressman asked us to provide him with insight as to what problems were being caused. The information we are providing the Committee today is the same information which we provided the Congressman at that time.

The Kansas Motor Car Dealers Association surveyed member-dealer service departments in both Topeka and Wichita. At the same time, it seemed that many service stations in these two cities were discontinuing the sale of "gasohol" and reverting to the sale of 100% gasoline. While dealerships in Wichita

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(ATT. 1)

reported very few gasohol related problems, the response we received from dealerships in Topeka was quite different.

In a survey of both domestic and import dealerships in Topeka, we found all dealerships receiving complaints about vehicles using blended fuels. Most of the problems and complaints reported dealt with the rubber and/or neoprene parts of the fuel and carburetion systems. We were told that the alcohol blended fuels affected these rubber and neoprene parts by causing them to swell and crack. We were also told that the alcohol acted as a cutting agent which would break loose varnish and other sediments in the fuel system, allowing that to get into the fuel lines and carburetors, eventually plugging those systems.

Additionally, we were told that methanol blends trapped water in the fuel system and eventually broke the water down into small particles instead of letting the water settle to the bottom of the fuel tank. When the water particles get into the fuel system, and due to their small size, pass through the filtering system, problems can occur, especially on vehicles with a "fuel injection" system. We were told that the water ruins the fuel injectors, and the replacement of these injectors can be quite expensive. I would point out though that it was the consensus of opinion that this water particle problem seemed to be caused more by methanol blends more so than ethanol blends.

In conclusion, we reported to the Congressman that dealership service departments felt the amount of alcohol blended into the gasoline was a part of the problem. Most felt that an 8%-10% alcohol content would not have a serious effect, but yet more effect than no alcohol at all. But, apparently, at least at that time, there were some blends which were running as high as 15%-20%, and those "high content" blends were a major cause of the problem.

In recent days, in following up on this summer's activities, I have been told that some problems are still being seen with alcohol blended fuels and its effect on the performance of vehicles. One Topeka dealership reported that a local outlet recently received a "bad batch" of blended fuel which caused severe performance problems in vehicles. The dealership reported this to the marketer of the fuel, and we understand that the marketer corrected the problem.

Mr. Chairman and Members of the Committee, for informational purposes I have attached two pieces of information on this issue. First, is a copy of an article which appeared in the July 19, 1984, Topeka Capital-Journal in which the reporters' findings concurred with our findings. Second, we are providing a copy of a page from the 1985 Chevrolet Motor Division Owner's Manual which addresses fuels containing alcohol. Please note that the Chevrolet Motor Division makes a clear distinction between ethanol and methanol blends, and boldly states "DO NOT use fuels containing more than 5% methanol under any circumstances." The division goes on to say that problems resulting from the use of such fuels are not the responsibility of Chevrolet and are not covered under the New Vehicle and Emission Control Systems Warranties.

We thank you for the opportunity to address the Committee on this issue, and would be happy to answer any questions you may have.

* * * * *

Alcohol fuels coming back despite image

By DON SKINNER
Capital-Journal staff writer

When innovative oil companies began blending grain alcohol with gasoline in 1979 to extend fuel supplies in a show of defiance against the Ayatollah, it didn't take long for the complaints to start.

Motorists said the alcohol-blended fuel peeled the paint from their vehicles, plugged carburetors and melted rubber and plastic parts in the fuel lines.

The reputation of alcohol fuels quickly became besmirched and it nearly disappeared from the marketplace.

But because of federal and state tax subsidies which give it just enough of an edge to compete with straight gasoline, alcohol-enhanced fuels began booming back into the marketplace last year. Now, nearly a third of all automotive fuel sold in Kansas contains alcohol, making the product much more difficult to avoid by drivers who may still be nervous about it.

The combined state and federal tax on alcohol-blended fuels is 10 cents per gallon less than on conventional gasoline. But in spite of its improved visibility, alcohol fuel hasn't been able to outrun its tarnished reputation.

The nation's chief public relations officer for alcohol fuels, David E. Hallberg, president of the Washington-based Renewable Fuels Association, a trade association which includes alcohol manufacturers, said part of the problem can be attributed to the newness of the industry, but most complaints are refutable.

"The best proof we have is every automaker except for Peugeot warranties the use of ethanol. But even with straight gasoline you're going to have bad batches. We're not perfect, but last year more than 80 billion miles were driven on ethanol enhanced fuels."

Hallberg attributes some of the problems to confusion between ethanol and methanol, the two major alcohols available for use in automotive fuels. While ethanol is derived from grains such as milo and corn,

Continued from page 1

methanol is made from natural gas. Ethanol costs about \$1.55 a gallon compared to 40 cents for methanol.

Hallberg said he thought many of the problems attributed to ethanol are the fault of improperly-blended methanol, which is four to seven times more corrosive than ethanol and must be blended more carefully than ethanol.

"We're convinced the reports of bad gas are almost exclusively because there is a temptation in the marketplace to use methanol that is not properly blended," he said.

Auto dealerships contacted this week claim that alcohol blends are plugging carburetors and fuel lines and melting plastic and rubber parts, although they all report difficulty in pinpointing an exact fuel source that might be causing the problems.

Two Topeka dealerships are advising their car buyers stay away from alcohol fuels.

Gary Williamson, general service manager for Bill Kobach Buick, said, "Based on information from Buick, we are advising new car customers to refrain from using alcohol blends because it does appear it is causing some carburetor damage and premature deterioration of parts like neoprene rings and fiber gaskets. I find it runs fine in my old truck, but we're suggesting customers not use it."

General Motors also issued a warning this spring that alcohol blends may damage fuel pumps in some late model GM cars.

About everyone connected with it acknowledges that alcohol additives act as a solvent, scouring out the lead deposits that have built up in gasoline tanks and fuel lines. That can lead to plugged carburetors and fuel filters. But some mechanics report more perverse problems.

Mark Moranz, service manager at John Hoffer Chrysler-Plymouth, said, "It was bad in '79 and '80 and now it's come up again. Fuel filters, internal carburetor parts and some fuel pumps are being affected by the

alcohol. We asked Chrysler to check into it and they say tell people to stay away from it for a while. It seems to dissolve rubber parts, makes 'em real mushy.

"We'll have a problem once a week where something is dissolved or a fuel pump goes out. We've run a few tests but never found the gasoline to be exactly bad in the car at the time we tested. A lot of people are staying away from alcohol because they've had to pay for a new fuel pump."

Brian Fisher, service manager at Dale Sharp Inc., said, "It's not on a crisis level, but we have had problems with alcohol fuels."

Terry Ruse, vice president of High Plains Corp., a company which operates a new alcohol plant at Colwich which can produce 10 million gallons of grain-derived ethanol a year, has heard all the problems.

"Some of the car dealers have sent samples in and it was not the fuel. In some cases carburetor parts swelled up on straight gas. Complaints? I get maybe three or four a week. They come and they go and I don't regard them as a real serious threat."

Lyle Goltz, state fuel allocation analyst, said he gets few complaints on alcohol fuels. Kansas law requires gasoline pumps to be labeled if ethanol or methanol has been added.

He said, "There may be some justified complaints with alcohol fuels, but a lot of people may just have a car that needs a tuneup."

Mickey Marshall, environmental engineer with the EPA in Kansas City, said few people complain about alcohol fuels.

For people who may be unsure about trying alcohol blends he advised, "Put in a new fuel filter. That's because alcohol fuels tend to scour out your gas tank and send whatever is there through the gas lines. Use a half tank of blended fuel with a half tank of your regular fuel until you get the system cleaned out. Then gradually build up until you're running on pure blend. Check the filter from time to time and you shouldn't have any problems."

"There may be some justified complaints with alcohol fuels, but a lot of people may just have a car that needs a tuneup."

— Lyle Goltz,
fuel allocation analyst

FUELS CONTAINING ALCOHOLS

Fuels composed of blends of gasoline and alcohol (ethanol, methanol, cosolvents) are available. Some fuel suppliers voluntarily use labels of the type shown below to inform consumers that their gasoline contains alcohol. Also, some states require the use of such labels. If you are not sure whether there is alcohol in the fuel you buy, ask the service station operator.

ALCOHOL CONTENT	
Methanol _____	%
Ethanol _____	%
Cosolvent _____	%

You may use properly blended fuels containing 10 percent or less ethanol (ethyl or grain alcohol) and still be covered by the New Vehicle and Emission Control Systems Warranties.

DO NOT use fuels containing more than 5 percent methanol under any circumstances. Fuel system damage or vehicle performance problems resulting from the use of such fuels are not the responsibility of Chevrolet and are not covered under the New Vehicle and Emission Control Systems Warranties.

Fuels containing 5 percent or less methanol (methyl or wood alcohol) may be suitable for use in your vehicle, if they also contain an equal amount of appropriate cosolvents to prevent fuel separation, and ingredients to protect your vehicle's fuel system against corrosion of metals and damage to plastics and rubbers caused by methanol. However, the suitability of these fuels is not fully known at this time. Check with the service station operator if you have any questions regarding whether the fuel contains appropriate cosolvents and corrosion inhibitors.

If you are not satisfied with the vehicle driveability and fuel economy provided by fuels containing alcohols, you may prefer to use unleaded gasoline that does not contain alcohol.

NOTICE: Take care not to spill fuel during refueling. Fuels containing alcohol can cause paint damage, which is not covered under the New Vehicle Limited warranty.

SECTION 4. The Use of Ethanol and Methanol in Gasoline

DETERGENTS AND DISPERSANTS

This class of additives is aimed at keeping vehicle metering and intake systems clean. Manufacturers of these substances claim their use leads to improved fuel economy and reduced exhaust emissions. With the growing use of non-adjustable carburetors and fuel injection systems, it is likely that these additives, along with deposit control additives, will become increasingly important.

ANTIKNOCK ADDITIVES

Antiknock additives are used in very small concentrations to increase the octane rating of gasoline, thus reducing the occurrence of knock. The only cost-effective antiknock additives are alkyl lead compounds, such as tetraethyl lead, discovered by GM researchers and used extensively in leaded gasoline. Manganese tricarbonyl is another com-

mercial antiknock additive; however, it is not as effective as lead additives and is more expensive. No cost-effective additives exist for unleaded gasoline. The effectiveness of antiknock materials is measured by ASTM research and the octane tests discussed in Section 2 of this Reference Manual.

ANTIKNOCK BLENDING COMPOUNDS

Antiknock blending compounds are high-octane hydrocarbons used in higher concentrations than antiknock additives. For example, a blending compound may be used at a three to five percent level, while an antiknock additive might occur at .2 or .5 percent in a gasoline blend. Because they are usually by-products of common refining or petrochemical processes, blending compounds can be used in large volume at a reasonable cost. Methyl tertiary butyl ether and tertiary butyl alcohol are two such compounds.

SECTION 4. The Use of Ethanol and Methanol in Gasoline

Ethanol and methanol have very good antiknock properties, and both of these alcohols mix well with gasoline because they are in the same boiling range as gas. For these reasons, these alcohol additives have seen increasing use in gasoline blends.

ETHANOL

Ethanol, which is also known as grain alcohol, was first marketed as a blend with gasoline under the name of gasohol. It is now being marketed as unleaded with ethanol, super unleaded, or premium unleaded, depending on octane. Vehicle performance and fuel system integrity with gasolines containing up to ten percent ethanol have generally been satisfactory, but the cost of ethanol is high. Ethanol costs \$1.55 to \$1.70 per gallon, and ethanol/gasoline blends are competitive with gasoline only if a tax subsidy is allowed. For this reason, the use of methanol has become increasingly attractive.

METHANOL

Methanol, which is also called wood alcohol, is a compound with distinctly different properties from ethanol. The addition of methanol to gasoline is

becoming increasingly popular due to methanol's function as an octane booster and its ability to extend fuel supplies, as well as its low cost. There is a strong economic argument for blending methanol with gasoline. Methanol's cost is between 40 and 45 cents a gallon.

Methanol Concerns

While the use of methanol may solve some problems, it may create others. The concerns about methanol use fall into two basic categories:

- There is no hard evidence on how much methanol can be blended with gasoline without adversely affecting vehicle operation, and there is some evidence of performance problems resulting from existing methanol/gasoline blends.
- There is no adequate service station pump labeling system that will tell motorists the methanol content of the fuel they are using.

FUEL SYSTEM INTEGRITY

Some fuel system materials, such as rubber, plastic, and metallic tank linings, were designed for use with gasoline and may not be compatible with

methanol/gasoline blends. For example, laboratory tests of the effects of methanol have shown that high concentrations (10 to 15 percent) in gasoline can cause the terne lining in fuel tanks to separate from the metal underneath. The lead separated from the fuel tanks has been found in fuel filters. One concern here is that lower concentrations of methanol over a longer period of time could do the same thing. Methanol's incompatibility with rubber or plastics could cause such problems as:

- Accelerator pump cup swelling and sticking
- Deteriorated needle valve
- Deteriorated rollover valve in the fuel filter
- Fuel hose swelling and leaking
- Fuel pump diaphragm failure

DRIVABILITY

Despite methanol's high octane rating, for a number of reasons, the performance of a vehicle using methanol/gasoline blends may suffer. One problem is methanol's high volatility—this can lead to vapor lock. Cold weather problems, such as engine stoppage and hesitation, have also been reported.

FUEL SEPARATION

The presence of even a small amount of water in the fuel system may cause methanol/gasoline blends to become cloudy and separate into two layers, a gasoline layer on top and an alcohol/water layer on the bottom. An engine will have a hard time burning the alcohol and water. Another problem is the corrosion that can occur when fuel system components come into contact with the water. Cosolvents (ingredients that prevent gasoline and methanol from separating in the presence of water) may help reduce the separation, but even these do not completely solve the problem.

FUEL ECONOMY

Fuel economy generally decreases with the addition of methanol to gasoline. This is due to methanol's lower energy content as compared with gasoline. For example, a blend of ten percent methanol in gasoline contains about five percent less energy than gasoline.

EVAPORATIVE EMISSIONS

Yet another concern with methanol is its tendency to evaporate more readily than gasoline. This almost always results in an increase in vehicle evaporative emissions, which, in turn, creates problems for manufacturers trying to comply with emission control standards.

NEED FOR A UNIFORM LABELING SYSTEM

During the past five years, the EPA has granted a number of waivers, legally allowing the blending of methanol in gasoline. The waivers cover methanol concentrations as high as 12 percent as long as cosolvents are used. Because of the concern over the compatibility of methanol/gasoline blends with current vehicle engines and fuel systems at such high concentrations, and because of the illegal blending of methanol at even higher levels, a number of states are planning to require that the methanol content of fuel be posted at the gas pump. As a further step, a nationwide labeling system has been proposed that would eliminate confusion caused by states with different labels (Fig. 10).

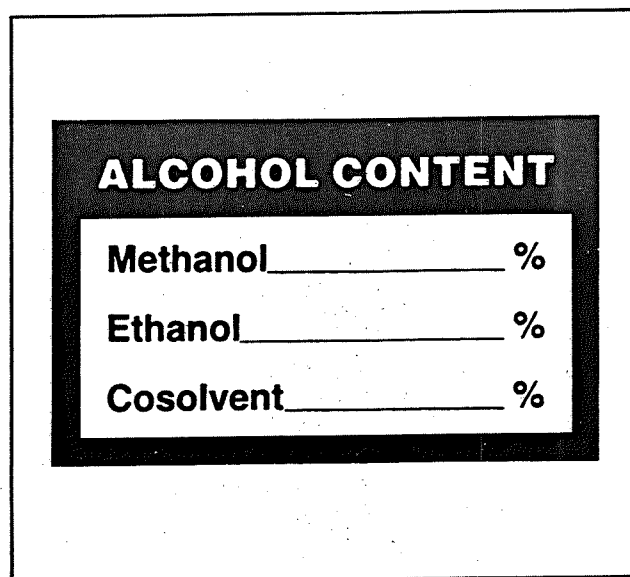


Figure 10. Alcohol Content

(See Appendix A for a simple test for determining the alcohol content of gasoline.)

SECTION 5. Diesel Fuels

BUICK GASOLINE REQUIREMENTS

Buick will continue to design the majority of its engines to use unleaded regular gasoline (87 octane). The use of unleaded regular gasoline is made possible, in part, by the use of knock sensors. On the other hand, the availability of premium unleaded has led Buick and others to use turbocharged engines. In 1984, Buick introduced a 3.8L fuel-injected turbocharged engine and recommends this engine use premium unleaded (89 octane) because of higher combustion chamber pressures due to

turbocharging. These pressures raise the compression ratio of the engine and thus increase octane requirements.

NOTE: Alcohol-gasoline blends can be used in Buick vehicles provided they contain no more than 10 percent ethanol. Gasolines containing 5 percent or less methanol may be suitable for use in Buicks; however, since evidence of their suitability is as yet incomplete, Buick Motor Division cannot, at this time, endorse their use.

SECTION 5. Diesel Fuels

It's an all-too-common assumption that since a diesel engine operates on a fuel less volatile than gasoline and since this fuel is ignited by very high air temperatures, fuel quality need not be a concern. In fact, due to the nature of diesel ignition and the characteristics of diesel fuel at cold temperatures, fuel quality is just as important for diesels as for gas engines.

DIESEL COMBUSTION

In the spark-ignition engine, the charge of fuel and air is taken into the cylinder as a mixture. Then it is compressed by the piston and ignited by the spark plug. In the diesel engine, air alone is taken into the cylinder and compressed. In order to obtain atomization of the fuel and penetration into the highly compressed air charge, the fuel is injected under pressures of 1500 to 20,000 psi.

Ignition Delay

It would be reasonable to assume that diesel fuel ignition occurs the instant fuel particles contact the high-temperature air within the combustion chamber. This does not happen. Instead, there is a delay between the start of fuel injection and the time that enough energy is released by burning fuel to increase pressure beyond that produced by the piston alone.

This delay period is illustrated in Figure 11. The graph shows cylinder pressure plotted against time. The dotted portion of curve indicates the cylinder pressure obtained with air alone, while the solid line represents both air and fuel. Note that the pressure for the air/fuel mixture does not increase

above that for air compression for quite awhile after injection begins. This is known as ignition delay.

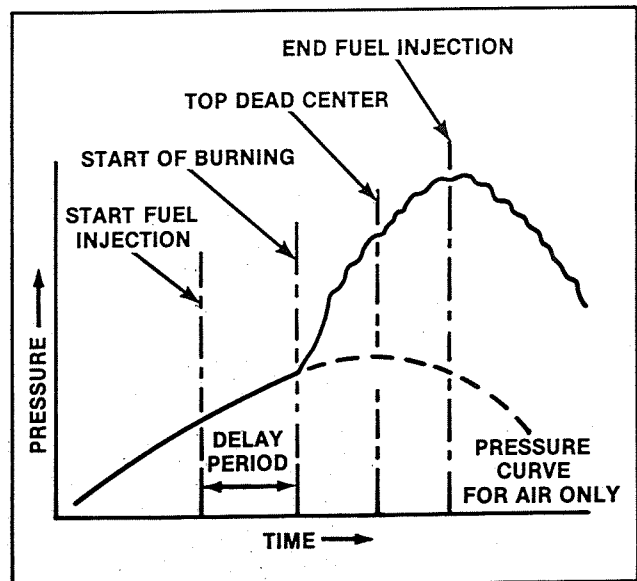


Figure 11. Pressure-time Diagram for High-load Operation

The ignition delay is an important factor in diesel engine combustion. Too long a delay period at high engine loads results in a pressure increase that is too rapid when the fuel finally does start to burn. The reason this happens is that during the long delay period certain chemical reactions occur that change the composition of the fuel. The resulting compounds burn too rapidly to allow a smooth flow of power, and knock or rough engine operation can occur at high engine loads.

GASOLINE AND ETHANOL

THE STATUS OF TAX BREAKS GIVEN BY THE STATE OF KANSAS FOR THE BLENDING OF ALCOHOL FUELS IS BEING DEBATED TODAY. IN CONSIDERING THE TAX STATUS OF THIS TYPE OF FUEL, SEVERAL ISSUES ARE INVOLVED. SOME OF THE ISSUES ARE LEGITIMATE QUESTIONS TO DEBATE. OTHERS ARE NOT.

QUESTIONS REGARDING THE AMOUNT OF REVENUE PRODUCED UNDER CURRENT GASOLINE TAX LAWS AND THE IMPACT ON THE FARM COMMUNITY AND GRAIN USAGE ARE CERTAINLY LEGITIMATE TO DISCUSS. THESE QUESTIONS CAN AT LEAST BE REDUCED TO A NUMBER AND GRASPED READILY. TAX DOLLARS CAN BE ESTIMATED AND THE NUMBER OF BUSHELS OF GRAIN CAN BE DETERMINED.

HOWEVER, ONE ISSUE HAS BEEN RAISED IN THIS DEBATE WHICH IS NOT AS CREDIBLE OR EASY TO QUANTIFY. THAT ISSUE IS THE CHARGE THAT ETHANOL GASOLINE IS A GENERALLY DAMAGING OR HARMFUL PRODUCT. A REVIEW OF THE FOLLOWING FACTS LEADS TO THE CONCLUSION THAT THIS ISSUE SHOULD BE DISREGARDED WHEN TRUE DEBATE OF THE TAX BEGINS.

1. THE PRODUCT IS HARMFUL TO YOUR CAR. THIS IS A GENERAL STATEMENT THAT HAS BECOME 'CONVENTIONAL WISDOM' IN SOME AREAS. SOME DRIVERS AND MECHANICS SWEAR THAT THE PRODUCT HAS CAUSED ALL TYPES OF DAMAGE TO CARS. SOME TEND TO GET VERY EMOTIONAL ABOUT THEIR CLAIMS. HOWEVER, BARRING ISOLATED INSTANCES, THE GREAT MAJORITY OF DRIVERS HAVE NOT EXPERIENCED ANY PROBLEMS. FOR EXAMPLE, DURING THE SPRING OF 1984, MANY PRESS ACCOUNTS WERE GIVEN ABOUT POSSIBLE HARMFUL EFFECTS OF THE PRODUCT IN WICHITA, KANSAS. AT THE SAME TIME, A CHECK AROUND THE COUNTRY OF CITIES WHO HAD LARGE VOLUMES OF THE PRODUCT IN USE YIELDED NO NEGATIVE REPORTS.

2. THE PRODUCT 'EATS' AWAY AT RUBBER PARTS. GENERALLY, A PROPERLY BLENDED ETHANOL GAS IS VERY SLIGHTLY MORE SOLVENT THAN REGULAR GAS. IF, WHEN FIRST USED, ANY NON VITRON TYPE RUBBER PARTS ARE IN A STAGE OF DETERIORATION, THE DETERIORATION WILL ACCELERATE SLIGHTLY. HOWEVER, THAT PART WAS IN THE PROCESS OF FAILING ANYWAY. THE EXPANDED USE SINCE 1981 OF LONGER LASTING VITRON RUBBER PARTS (A KIND OF VINYL RUBBER) IN ALL CARS HAS GENERALLY ELIMINATED THIS PROBLEM.

3. DIRT AND GUM WILL CLOG YOUR CAR. AS NOTED ABOVE, THE PRODUCT IS SLIGHTLY MORE SOLVENT. AS A RESULT, ANY RESIDUE THAT IS PRESENT IN THE FUEL SYSTEM WILL DISSOLVE A LITTLE MORE. REPLACING THE FUEL FILTER SHOULD BE ADEQUATE PROTECTION IF DEBRIS IS PRESENT. IN THE SPRING AND SUMMER OF 1983, ONE MAJOR OIL COMPANY WHO SUPPLIES VERY LARGE VOLUMES OF ETHANOL GASOLINE INTRODUCED THIS PRODUCT INTO THE KANSAS CITY AND WICHITA MARKETS. FREE FUEL FILTERS WERE SUPPLIED TO ANY DRIVER WHO EXPERIENCED THIS PROBLEM. AT LAST REPORT, LESS THAN FIFTY FILTERS HAD BEEN GIVEN OUT IN THESE MARKETS. THE OIL COMPANY CONCLUDED THAT NO REAL HARM WAS DONE.

4. THE PRODUCT CAUSES DRIVING PROBLEMS. SOME REPORT THAT THEIR CAR RUNS BETTER ON STRAIGHT GAS. HOWEVER, JUST AS MANY PEOPLE HAVE REPORTED THE OPPOSITE; THAT THEIR CAR RUNS BETTER ON ETHANOL GAS.

2/7/85 ATT. (2)

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THERE ARE TWO VERIFIABLE FUEL SYSTEMS WHICH DO NOT RUN WELL ON THE PRODUCT. MOST OF THE NEWER HONDA AUTOMOBILES AND MANY OF THE CARS EQUIPPED WITH 'BOSCH' TYPE FUEL INJECTION SYSTEMS HAVE TROUBLE. EXAMPLES OF THE LATTER ARE GENERALLY HIGH DOLLAR EUROPEAN CARS LIKE THE AUDI AND MERCEDES. IN ALL CASES, THE OWNERS MANUAL GIVES CLEAR INSTRUCTIONS ABOUT FUELS. IT IS INTERESTING TO NOTE THAT CALLS TO MANY DEALERSHIPS AROUND THE COUNTRY RESULT IN OPPOSITE STATEMENTS. CALLS TO A LOCAL HONDA DEALER RESULTED IN MANY COMPLAINTS ABOUT THE PRODUCT. YET, CALLS TO OUT OF STATE HONDA DEALERS WHERE THE PRODUCT IS IN USE RESULTED IN REPORTS OF NO KNOWN PROBLEM. EVEN WITHIN THE CITIES OF KANSAS CITY AND WICHITA, GM DEALERS GAVE OPPOSITE OPINIONS ABOUT THE FUEL.

5. THE PRODUCT IS MISHANDLED. UNFORTUNATELY, THIS STATEMENT RINGS TRUE IN SOME INSTANCES. TWO MAIN AREAS OF MISHANDLING OCCUR. FIRST, SEVERAL CASES OF FOREIGN MATERIAL IN THE PRODUCT IN THE LAST FEW YEARS HAVE HAPPENED. THIS USUALLY HAPPENS IN THE TANK FARM OF THE REFINERY OR AT SOME POINT IN THE DELIVERY SYSTEM SUCH AS THE UNDERGROUND TANKS AT A SERVICE STATION. DUE TO IMPROPER PRECAUTIONS, SOME CONTAMINANT GETS INTO THE PRODUCT. MANY OF THE GASOLINE RETAILERS DID NOT TAKE MEASURES TO PREVENT THE CONTAMINATED PRODUCT FROM BEING SOLD. A FEW RESPONSIBLE RETAILERS CLEANED ALL OF THEIR DELIVERY EQUIPMENT AND PUT FINAL FILTERS ON EACH DISPENSER. FORTUNATELY, THESE INSTANCES ARE BECOMING RARE SINCE THE RETAILERS ARE MORE AWARE OF THE PROBLEM.

6. CONSUMER MISUSE. DURING COLD WINTER CONDITIONS, THE MAJORITY OF MOTORISTS HAVE USED AN ANTI-ICING ADDITIVE IN THEIR CARS TO PREVENT FUEL LINE FREEZE UPS. THE FREEZE UPS ARE USUALLY CAUSED BY CONDENSED WATER WHICH OCCURS IN ALL CARS. CUSTOMERS HAVE BEEN FREQUENTLY ADDING ONE TO THREE BOTTLES OF ANTI-ICING PRODUCTS INTO ETHANOL GASOLINE. THE COLDER THE TEMPERATURE, THE MORE IS ADDED. IN SMALL CARS, EVEN ONE BOTTLE OF THIS ADDITIVE CAN RAISE THE ALCOHOL TO DAMAGING LIMITS. WORSE YET, MOST OF THESE ADDITIVES ARE 90 TO 95% METHANOL, WHICH CAN CAUSE DAMAGE.

IN CONCLUSION, MANY MYTHS HAVE BEEN GIVEN OUT ABOUT ETHANOL GASOLINE. BUT IN ALL CASES, THE MYTH DIDN'T HOLD UP WHEN OTHER COMMUNITIES WERE CONSULTED. NO CLEAR CUT SET OF PROBLEMS OR SYMPTOMS HAVE EMERGED ON A REGIONAL OR NATIONAL BASIS. YET DURING THIS TIME, MILLIONS OF DRIVERS CONTINUE TO USE THE PRODUCT WITHOUT PROBLEMS. AS STATED ABOVE, UNTIL SOME PROVABLE OR WIDESPREAD EVIDENCE OF PROBLEMS OR SYMPTOMS ARISES, THIS PART OF THE ISSUE SHOULD BE IGNORED.

RESPECTFULLY SUBMITTED,

CHARLES BRODIE

Committee of . . .

Kansas Farm Organizations

Becky Crenshaw
Legislative Counsel
Box 4842
Topeka, Kansas 66604
(913) 272-1271

Testimony of the
COMMITTEE OF KANSAS FARM ORGANIZATIONS

with respect to

SB 30

presented by

Rebecca Crenshaw
Legislative Representative

to

Senate Transportation Committee

February 7, 1985

Mr. Chairman and members of the Committee, I am Rebecca Crenshaw, legislative representative for the Committee of Kansas Farm Organizations.

The Committee of Farm Organizations is a coalition of 20 farm organizations joined for the purpose of discussing those issues of importance to the Kansas ag sector in order that the organizations can reach an informed consensus and present a united effort.

On the issue of ethanol production and marketing, the ag organizations have consistently agreed upon and supported three basic and inseparable thoughts:

- 1) Ethanol is a non-traditional market for agricultural products and, therefore, should be promoted;
- 2) Promotion of ethanol production is best achieved through tax incentives which results in competitive pricing;
- 3) Competitive pricing of ethanol creates greater demand which in turn builds a fledgling industry in the state of Kansas which uses ag products in a non-traditional way.

Mr. Chairman, the Committee did not rush into opposing this legislation. The Committee pondered, studied and discussed the information presented to the interim committee. Despite the concerns of the municipalities, the farm organizations continue to feel this industry must be supported nationwide and Kansas must carry its share until Congress accepts funding of the entire incentive. Individual organizations continue to work on such national legislation.

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Mr. Chairman, there seems to be some contradictions at work with this type of legislation.

First, we are all painfully aware of the dangerous situation midwestern farmers are in at the present time. The can be attributed primarily, in simple terms, to overproduction, and inadequate markets leading to inadequate prices. Yet we sit here today, talking about striking a blow if not eliminating a market for grain. Then many if not all of us will attend one of the three special meetings designed to formulate a federal farm policy which, in all likelihood, will stress the importance of developing additional grain markets. Doesn't that seem somewhat contradictory?

We have a state department for economic development whose primary purpose is to attract industry to the state, yet, we don't seem to be standing very strongly behind some we have. In this same vein, let us not forget the retailers along the state border. Its interesting the Johnson County commissioners want the subsidy eliminated because retailers along the border are probably not going to be price competitive with Missouri retaining a gas tax .04¢ lower than Kansas and gasohol rising in price without the present incentive.

There are many such questions, Mr. Chairman, which need to be examined. Let us remember the interim committee studied all of this and recommends a .01¢ increase in the tax on gasohol. We support the committee's recommendation and ask this committee to not support this legislation.