

Editor's Notebook



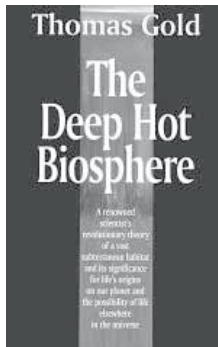
Mark Newhall
Editor & Publisher

Scientist Says Supply Of Oil Is Virtually Inexhaustible

Oilfield geologists do not like Thomas Gold. That's because the world famous physicist has a theory about oil that goes against everything they believe in.

The traditional theory of oil, coal and natural gas is that these substances are made up of the bodies of dead creatures and plant material. Gold does not believe that. He thinks the earth has a large biological core and that oil comes bubbling to the surface from inside. In his view, the earth contains a virtually inexhaustible supply of oil.

Gold has frequently been on the "maverick" side of issues. For 20 years, he ran the Cornell Center for Radiophysics and Space Research in Ithaca, New York, where he still lives. He was a colleague and friend of the late astronomer, Carl Sagan.



Gold says there's evidence for his controversial oil theory, and he lays it out in his recent book, *The Deep Hot Biosphere*. For one thing, a number of large oil fields have produced many times more oil they they were originally thought to hold. Other oil fields around the world, which were once thought to be depleted, have been refilling at a rapid rate, including some fields in the Middle East and sites in the Gulf of Mexico.

To help prove his theory, Gold persuaded a research group in Sweden to drill down nearly 5 miles through solid granite rock that most geologists said could never shelter organic material or oil. However, Gold pulled up a putty-like sludge that proved them wrong.

The bottom line is that Gold believes oil comes from the center of the earth, bubbling up below the earth's crust. As oil is pumped out of its shallowest levels, oil from below eventually rises to replenish the wells. Oil companies and their geologists do not want to hear his theories for several obvious reasons, he says. First, it would mean that all their thinking for the past hundred years has been wrong. And secondly, the idea that our oil supply is virtually unlimited would totally change the way people view oil. When prices are high, oil producers can always fall back on scarcity arguments.

Revolutionary "Digital" Engine To Launch This Year

What might be the first of a great new wave of "digital" engines will be introduced this summer in Navistar trucks (formerly International).

The new "camless" engines are fitted with electronic valves rather than mechanical valves, which allows them to be precisely controlled by a computerized engine management sys-

tem. Key to success of the valves are ultra high-speed solenoids invented by Woodland Park, Colo., inventor Eddie Sturman of Sturman Engine Systems. Sturman originally invented the solenoids for the space program.

Precision control of the valves and fuel injection system provides better power management, fuel efficiency, and emission control. Dan Ustian, president of Navistar's engine group, says, "Our camless engine represents a radical change in the way engines operate. We're proud to be the first company to put a camless diesel in a truck."

Getting rid of the mechanical camshaft and push rod assemblies greatly simplifies the engine, reducing maintenance and potential problems - as long as the computer functions properly, of course. And the company's testing has shown up to a 40 percent increase in torque at clutch engagement. The design also makes it easier to build in engine braking technology for better control of deceleration. Some reports have said that because both diesel and gas engines equipped with the electronic valves run so much cleaner, catalytic converters and other environmental controls can be eliminated. In addition, the engines are also much quieter and overall weight of the engine is reduced.

Navistar reportedly plans to introduce the new engines in a limited number of trucks this summer, with a further rollout next year.

Working Model Of Non-Stop Baler

That non-stop baler design we first told you about nearly two years ago is now in the field (Vol. 22, No. 5). Inventor Geoff Eyre of Derby, England, told the British farm paper *Farmer's Guardian* that his prototype works better than even he had expected.



The baler mounts sideways behind the tractor. A side-mounted pickup feeds hay to a conveyor that leads into the baler. After it's formed, the bale is dropped out the other side. While the bale is tied and dumped, hay accumulates on the feed conveyor behind the pickup.



The setup eliminates

the need for the driver to weave since sensors keep crop material flowing evenly into the baler.

Eyre says he can make up to 80 round bales per hour. The Claas 44 baler he's using is equipped with a chopper to make dense silage bales.

Besides speed, other advantages include less wear and tear to the tractor clutch and the hay pickup is much more visible when it's positioned out to the side of the tractor.

Now that he has proved the concept in the field, Eyre hopes to finalize a deal with a manufacturer to produce machines.

Contact: FARM SHOW Followup, Geoff Eyre, Traileyre, Bradwell Derby, United Kingdom (ph 011 44 1433 620353).

He Switched From Tracks To Tires

We noted with interest a recent article in the British farm magazine *Farmer's Weekly* which told about a large farm operation which decided to switch from rubber tracks back to tires.

The farmer had owned two Cat Challengers for years. But when it came time to get a new machine, he decided to switch back to tires for a variety of reasons.

The first reason was cost. He could get a conventional "tired" tractor for considerably less. The second reason was traction. Farm manager Sandy Rutherford says he'd had problems plowing sugar beet ground during winter months. He says the lower ground pressure of rubber tracks sometimes actually reduces traction. Under wet, cold conditions, he says the Challengers would "snake" back and forth so badly they'd have to reduce speeds to do a good job. Sometimes they would have to wait for the ground to dry out.

Another factor was maintenance costs. Rutherford says tire wear rates are clearly less than tracks. Service costs for the "tired" tractor are about 1/3 that of the Cat Challenger, when track replacement costs are figured in.

A final factor for the farm operation was road speed. The tractor they bought - a Renault - has a much higher highway speed than the Challenger so they can get to far flung fields faster.

Tool Battle: Sears vs. Home Depot

Home Depot is by far the nation's biggest retailer of home-improvement supplies. It has a market value of more than 11 times that of Sears. But Sears still has the nation's best-known line of hand tools, Craftsman. So far, the 73-year-old brand is far better known than Home Depot's Husky or Ridgid lines. Nearly 9 out of 10 men in the U.S. own Craftsman tools.

Sears dominates in mechanics tools, such as wrenches and sockets. But a Home Depot spokesman says Sears is losing market share fast in other areas. Home Depot is now the biggest seller of portable power tools, including drills. And it's making headway against Sears in stationary bench tools like routers and band saws.

Emmerson tool company makes the RoboGrip pliers for Sears, which has been a huge hit since it was introduced in 1993. Recently, when the company developed the "RoboHammer", it took the new tool to Home Depot. The RoboHammer is designed to minimize recoil. A tiny jagged groove, about the width of six hairs, is cut into the head of the hammer. It is supposed to absorb shocks. The handle itself was also redesigned to fit more snugly into the hand. It's also one of the first hammers to feature left and right hand models.

However, the RoboHammer is not the first hammer designed to absorb shocks. At least four other manufacturers have shock-absorbing hammers on the market. The big difference is that they don't have the marketing clout of Home Depot behind them. (*Wall Street Journal*)

That Red Flag Must Go!

That red flag on rural mail boxes must go. It was first used over 100 years ago before our mailboxes became crammed with junk mail. It was developed so rural mail carriers would not have to stop their horses to look in our boxes to see if we had a letter to mail. That has all changed. Most people get mail every day. Now the red flag just alerts thieves that we have letters to mail that contain our bank and credit card numbers so they can wipe us out and cause us trouble for years. If the crooks in your area have not caught onto this method, they will soon enough. I recommend everyone stop using their red flags and write the Postmaster General to eliminate them. (*Elmer Pinkerton, Elmwood, Neb.*)

FARM SHOW's Web Site

We've totally revamped our web site (www.farmshow.com) to make it more user friendly. One of the biggest improvements is that it's now easier to look up stories from past issues and get reprints for a minimal fee. It's also a good place to "talk" directly to our editors if you've got a story idea, a "best" or "worst" buy, or just a comment that you'd like to share about the magazine.

"To understand the condition of the U.S. heartland, chew on these numbers: In 1970, an average loaf of bread cost \$.27, from which the farmer received \$.03, or about 11 percent. Today, a loaf of bread costs \$.86, from which the farmer receives less than \$.04, or less than 4 percent." (*Michael Olson, California farmer and radio commentator*)

The following are actual questions asked of library reference-desk workers:

- "I'm looking for a list of laws that I can break that would send me back to jail for a couple months."
- "Do you have a list of all the books I've ever read?"
- "Can you tell me why so many famous Civil War battles were fought on National Park sites?"
- "Do you have any books with photographs of dinosaurs?"
- "Do you have any books here?"

An old man was wondering if his wife had a hearing problem. So one night, he stood behind her while she was sitting in her lounge chair. He spoke softly to her, "Honey, can you hear me?"

There was no response. So he moved a little closer and said louder, "Honey, can you hear me?"

Still there was no response. Finally, he moved right behind her and yelled, "Honey, can you hear me?"

She yelled back, "For the third time, yes!"